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ABSTRACT

This study examines an experimental program for teaching French, starting in grades two, three, and four, in two Canadian elementary schools. The program was established during the 1968-69 academic year. There are three major sections in the report: (1) a description of the pilot program carried out in Allenby and Bedford Park Public Schools, (2) a review of relevant literature of the various studies carried out elsewhere, and (3) results of a survey made among the adult community concerning second language instruction in elementary grades. An extensive list of reference materials is included. (RL)

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THE BOARD OF EDUCATION FOR THE CITY OF TORONTO

AN INVESTIGATION OF THE EXPERIMENTAL FRENCH PROGRAMME AT BEDFORD PARK AND ALLENBY PUBLIC SCHOOLS

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August, 1969

TABLE OF CONTENTS

Page No.

PREFACE 1

THE NATURE OF THE FRENCH PROGRAMME AND ITS IMPLICATIONS IN THE TWO PUBLIC SCHOOLS 3

What is the Nature and the Outline of the Programme? 3

What Activities Are Carried Out in the Classroom? .. 4

What Are the Methods of the Teacher? 4

Do Pupils Have to do Homework? 5

What Opportunity do the Pupils Have to Use French Outside Class? 5

What is the Allowed Time for Each of the Language Skills: Speaking, Reading, Writing, Vocabulary, and Grammar? 5

Do Pupils Behave During the French Period Similar to the Way They Behave During Other Periods? If Different -- How and Why? 6

Who is Allowed to Join the French Classes? Is Anyone Excluded? Why? 6

Is There a Difference Between French as a Second Language and French as a Third Language (As for Some of the New Canadians)? 7

What is the Nature of the Material Used? Does it Use Canadian Background? French? International? Is There a Difference Between the French-Canadian Language and Literature and French in France? 7

How Can Teachers Evaluate the Progress of Each Child? 8

If Classes Become Bigger Than They Are Now, Can the Teacher Carry on the Same Load with the Same Capability? 8

What Consideration Should be Given to Instruction in Other Languages Besides French? Why is the Stress on French and Not Other Languages? 9

What Are the Goals of the Programme in the Minds of -- Students, Parents and Teachers? 9

Page No.

Would This Programme Increase Student Load in Terms of Time? 10

How Are Teachers Prepared to Carry Such a Programme? Is a Different Preparation Required for a Teacher of a Second Language to Young Children Than to Older Children? 10

BILINGUALISM AND SECOND LANGUAGE LEARNING: AN INTRODUCTION TO THE RESEARCH LITERATURE 11

RESEARCH STUDIES ON THE EFFECTS OF BILINGUALISM 14

Theories of Bilingualism 14

The Effect of Bilingualism on Language Development 16

The Effect of Second Language Instruction on School Achievement 20

Is There a Transfer Effect of Second Language Learning to Other Areas? 23

The Effect of Bilingualism on Mental Development 26

(a) Those Studies Which Show Bilingualism to Have a Detrimental Effect 27

(b) Those Studies Which Show Bilingualism to Have No Effect 29

(c) Those Studies Which Show Bilingualism to Have a Favourable Effect 30

The Effect of Bilingualism on Social Adjustment 31

RESEARCH STUDIES ON THE AGE OF THE LEARNER 34

RESEARCH STUDIES ON LANGUAGE APTITUDE 44

RESEARCH STUDIES ON ATTITUDES AND MOTIVATION 59

The Motivational Factor 59

Attitudes and Type of Orientation 60

Other Aspects of Motivation 67

SUMMARY OF RESEARCH LITERATURE 68

RESPONSES AND REACTIONS TO THE QUESTIONNAIRE 72

RESULTS 74

Page No.

REFERENCES 102

APPENDIX 110

AN INVESTIGATION OF THE EXPERIMENTAL FRENCH PROGRAMME AT BEDFORD PARK AND ALLENBY PUBLIC SCHOOLS

PREFACE

An experimental programme for teaching French, starting in grades two, three and four in Allenby and Bedford Park Public Schools, was launched this year (1968 - 1969).

Aware of the various trends and concerns, the Board, on February 6, 1969, requested, "That the Board's Research Department investigate the experimental French programme being conducted in Grades 2, 3, and 4 at Bedford Park Public School and Allenby Public School."

Information about this programme is best presented in the form of a description of the procedures and practices because this was a pilot programme; an adequate basis for comparisons was not available.

Relevant studies have been done, however, in other places and an examination of their results provides information about the problems of teaching a second language in the lower grades.

Parents, teachers, principals of schools, and resource personnel were given an opportunity to express their ideas in regard to teaching a second language in elementary grades.

There are three major sections in the following report:

1. A description of the pilot programme carried out in Allenby and Bedford Park Public Schools.
2. A review of relevant literature that indicates the various studies carried out elsewhere and summarizes the results with regard to the various situations. and conditions under which such studies were conducted.

3. The responses of parents, teachers, administrators, and resource personnel concerning some of the feelings about second language instruction in elementary grades.

THE NATURE OF THE FRENCH PROGRAMME AND ITS IMPLICATIONS IN THE TWO PUBLIC SCHOOLS

In Allenby and Bedford Park Public Schools, beginning French was introduced simultaneously in grades two, three, and four as a pilot study. One grade does not follow on from the one before. Each grade has its own distinct activities. Therefore, the programme must be described for each grade in spite of the fact that it is the first French instruction for that grade.

To examine the programme, a series of questions that may occur to persons who are interested in the programme are considered:

What is the Nature and the Outline of the Programme?

French is taught in three grades -- two, three and four -- in addition to the regular programme of French which starts in grade five in the two public schools where the pilot study is being carried out. Thus, a short description of French instruction in each of the three grades is given.

Grade 2 -- The instructional situation is quite informal with the small group placed in a semi-circle around the teacher. Use is made of action songs, games, and puppets to involve pupils in activities that relate to their age and interest level. The content of the programme includes the pupil as the focal point: name, clothes worn, simple observations on the weather, a visit with favourite pets, and discussions about special holidays and the family. It should be made clear that these topics are not presented formally, but rather are based on an experience approach placing stress on comprehension and pupil activities. However, some stories are concerned with the city life with which pupils are acquainted. In this grade, the French programme is carried out for 15 minutes a day for the five days of school each week.

Grade 3 -- The grade three beginning programme is more structured than that in grade two, and consists also of 15 minute periods. While activity songs, poems and games are still part of the programme, the content is more formally presented. The programme includes identification, parts of the body, family pets, dialogues dealing with real experiences, a few aspects of the school, a few basic numbers, weather, seasons, and simple content about special holidays.

Grade 4 -- The beginning programme for grade four involves five twenty minute periods per week. Although similar to the grade three programme in content, the approach is more formal and deals with these areas in greater depth. Activities, songs, and poems are chosen which will appeal to the more mature level of the student.

What Activities Are Carried Out in the Classroom?

Activities in the classroom during the French period include listening, verbal response, imitation, repetition, dramatization, carrying out simple commands. The students question other students, re-enact situations, play roles, sing, play games in French and sometimes have a puppet show.

What Are the Methods of the Teacher?

Primarily the teacher's methods are elastic, cutting across all the methods from direct to audio-visual. Basically, the teacher uses visual materials or her own dramatic ability to convey meaning. To develop comprehension she associates French statements with a particular visual presentation. Students are asked to imitate a given statement. Questions are related to the visual presentation.

Do Pupils Have to do Homework?

There is no homework. However, in certain cases some children may wish to hear a certain record or prepare a dialogue dramatization but this is not required of each pupil; it is an additional opportunity if the student would like to do it.

What Opportunity Do the Pupils Have to Use French Outside Class?

In general, the opportunities are limited but for those who seek earnestly to use French, opportunities may be found. There are places in Toronto where one may practise the French language. There is the French Cultural Centre, "La Maison Française" which puts one in touch with the French-speaking people living in Toronto. Listening to the French tongue could be practised by listening to the French radio station, or watching the French television programmes.

What is the Allowed Time for Each of the Language Skills: Speaking, Reading, Writing, Vocabulary, and Grammar?

The time is fairly evenly distributed between the skills of aural comprehension and oral expression at this level. Because the ability to pronounce French sounds accurately depends upon ear training or auditory discrimination, the emphasis is on oral expression in the very early stages. Because a person, even in his/her mother tongue, can learn to understand more rapidly than he/she can reproduce sounds orally, the student's understanding of spoken French is developed considerably beyond his ability to express himself orally.

Reading and writing are not introduced in grade two because written French and spoken French are separate entities. The clues that pupils use to distinguish plurality and to develop comprehension in spoken language differ significantly from the clue in the written form, e.g.,

Written Form — Le$\underline{s}$ élèves   Clues: les & s
Spoken Form — Le$\underset{z}{\underline{s}}$ élèves   Clues: lez & no "s"

In this pilot project, it is not intended to introduce reading and writing in grade two because it is the first year of French instruction.

Grammar is not formally taught in the three-grade programme but is learned as a concomitant phase of the language without reasoning or explanatory statements. Vocabulary, although important, is considered in this programme to be secondary to the importance of teaching structure or the language pattern. Vocabulary needs a careful approach and a continuous revision of the activities practised in the class, e.g., the word "puits" in French which means "spring of water or well" in English could not be comprehended by city pupils. So, a story that contains such a word (even in the English language) is largely irrelevant to pupils who have lived all their lives in cities like Toronto.

Do Pupils Behave During the French Period Similar to the Way They Behave During Other Periods? If Different -- How and Why?

In a sense if we refer to the activities of the pupils, we can say that certainly the behaviour of the children is different from that observed in the instructional programmes, because most of the activities in the French programme rely upon conversation; and with no requirement for written work. However, it should be noted that the teacher of French spends only 15 minutes per day while the class teacher spends the rest of the day with the same group of students. Therefore, in the few cases observed, children didn't give adequate attention to the teacher of French.

Who Is Allowed to Join the French Classes? Is Anyone Excluded? Why?

In Bedford Park the top third of the students began French in September, the second third in October, and the last third in December, so that by January of this year, all pupils were involved in the instructional programme. In Allenby School, all pupils started simultaneously.

Basically, all regular students are permitted to take French. Those who have an insufficient command of English are not permitted to take French. It is believed that it is important for the individual to develop a command of English, rather than French (as a second language). However, a search of the research literature indicates that there is NO final answer to this problem — would French reinforce English language learning or hinder its learning?

Is There a Difference Between French as a Second Language and French as a Third Language (As for Some of the New Canadians)?

There is a significant difference between learning French as a second language and French as a third language. Generally speaking, students who are learning French as a third language perform better than children who are learning French as a second language. Somehow, the learning of a third language is facilitated by the learning of a second. This opinion is expressed by the French Department of the Board.

What is the Nature of the Material Used? Does it Use Canadian Background? French? International? Is There a Difference Between the French-Canadian Language and Literature and French in France?

The nature of the material is primarily audio-visual. Traditionally, materials used for French instruction were based on France but more recently available materials have begun to reflect French-Canadian background with the idea of facilitating the concept that French is not necessarily a foreign language in that it is an official language in Canada. However, this necessitates another revision (as mentioned before) concerning the material used. Spoken French-Canadian French tends to be more archaic; the written style tends to be heavier, more involved, and less flexible than that of France. It is, nevertheless, good French. There are certain expressions that are to be found only in Quebec.

How Can Teachers Evaluate the Progress of Each Child?

The only way to assess the pupil's progress in this particular programme in Allenby and Bedford Park Schools is a personal evaluation by means of daily question-and-answer techniques as well as by pictorial comprehension tests. This is so because there is no written work. Hence, it could be rightly stated that because of the unique nature of this programme there is no basis for comparisons of marks; progress can be assessed only in terms of changes as an individual pupil's competence increases.

If Classes Become Bigger Than They Are Now, Can the Teacher Carry on the Same Load with the Same Capability?

It was observed that classes are divided into sections in Bedford Park School, and classes at Allenby School are reasonably small. In language instruction, particularly when it depends upon oral practices, the size of the group has a significant effect upon the learning process. While oral comprehension, being a passive skill, might be developed in rather large groups, oral expression or communication of necessity must be carried out in groups of about 15 pupils. The larger the class, the more choral or unison repetition is required in order to have all students participate, whereas the smaller group will permit the teacher to give attention to each pupil individually without making the rest of the class wait for long.

It requires a more skilled teacher to handle a larger group than it does a small group. It was observed that larger groups have children who are on the periphery and are only partially involved regardless of how effective or interesting a teacher attempts to be. In the larger group it is much more difficult to ensure individual growth and development; therefore, cases where children fall drastically behind the average performance are to be found more readily in the large groups than in the small.

In the case of English, this may be taken care of as the child hears and speaks it in every aspect of his daily life. But it would be an obvious defect in another language (other than one's mother tongue) which necessitates small classes for continuous correction of speech. It is considered that in the introduction of a second language, sizes of classes should be carefully observed so as not to exceed 15 pupils per class.

What Consideration Should be Given to Instruction in Other Languages Besides French? Why is the Stress on French and Not Other Languages?

A second language should have logical support. The support given to French relies upon the recommendation of The Report of the Royal Commission on Bilingualism and Biculturalism which states:

> "...because Canada will need more bilingual citizens in the future than it has in the past, a minimum objective must be for all students to receive a basic introduction to both official languages so that they may become bilingual, if the need or the opportunity should rise."

The support given to other languages relies upon the number of the ethnic groups in Toronto.

However, even if one language is to be the second language, there is still a chance for acquiring a third language. Most probably, such a language for those with a non-English-speaking background will be their ethnic language. For those with an English-speaking background, there will be a variety of choices.

What Are the Goals of the Programme in the Minds of -- Students, Parents and Teachers?

The students' goals tend to be those established by parents and teachers who motivate the students and influence their thinking.

Some of the goals, or reasons given for studying and/or teaching another language are -- to have a social pride;

-- to have a better job opportunity in the future;

-- to develop international understanding;

-- to know another language;

-- to work for one's country abroad or for an international organization;

-- to look for business connections outside the country;

-- to facilitate tourism and trips in other countries;

-- to speak the parents' language (in the case of the New Canadians);

-- to instill an interest in another culture.

Would This Programme Increase Student Load in Terms of Time?

French, as it is taught now in grade two, doesn't increase the student's load since time for instruction is taken from the daily schedule and does not require additional work after school.

How Are Teachers Prepared to Carry Such a Programme? Is a Different Preparation Required for a Teacher of a Second Language to Young Children Than to Older Children?

The certification of teachers for teaching French as a second language to English speaking children is the sole responsibility of the Department of Education. There is no special certification for different levels beyond the elementary and secondary differentiation. Teachers who are native French speakers and who have no previous pedagogical training are able to take a special course consisting of five weeks of instruction in methods pertinent to the approach at the elementary school level. Regular teachers may prepare themselves for such a programme either by taking summer courses under the auspices of the Department of Education or by taking French as an option during the regular teacher training programme at teachers' college.

BILINGUALISM AND SECOND LANGUAGE LEARNING: AN INTRODUCTION TO THE RESEARCH LITERATURE

Before beginning a review of the literature in the wide field of bilingualism, it is necessary to define some terms which are often misunderstood. Uriel Weinreich has defined bilingualism as the alternate use of two or more languages by the same individual. The Dictionary of Psychological and Psychoanalytical Terms reports that bilingualism is usually viewed as the speaking of two languages with approximately equal facility. As well as being able to use two languages almost interchangeably, a bilingual must also be able to "think" in each of the two languages.

Students of a second language rarely reach this state of bilingualism. In general, a person taught a language in the school situation will become only what is termed a "biglottal." He will be able to use his second language, but he will not be able to "think" in it, and he will thus not speak this second language with the automaticity which characterizes the bilingual.

Research on bilingualism and second language learning tends to fall into four categories. The first group of studies deals with the effects of bilingualism and serious language study. A second group of studies deals with the best age for beginning this study. A third examines the aptitude for languages, and the fourth group investigates the role of attitudes and motivation in second language acquisition.

In none of these categories does the literature provide a final answer to the problems. The reader is warned that in each of the four groups, there are studies with conflicting results. For example, with respect to age, there are studies which show that children do learn many aspects of language extremely well. Adults, however, given equal time and motivation, also are able to achieve remarkable results in second language learning. Children are, however, more likely to be able to learn to speak without an accent.

In the second category, aptitude is generally shown to be difficult to predict by means of a single measure such as intelligence test scores. Tests which consider aptitude to be a series of skills, show better results in the prediction of language aptitude. These tests are not, however, completely reliable.

There is an extremely important variable which is not measured by aptitude tests. This is the variable which includes attitudinal and motivational factors. Without motivation of some kind, there can be no learning. Studies show that the strength of motivation depends upon the type of orientation towards the language which the learner possesses. This orientation is, in turn, determined by the attitudes which the learner holds toward that linguistic group.

In regard to the effects of bilingualism, there is scarcely any agreement. One can find studies, often poorly designed, which insist that second language learning hinders mental development, interferes with the first language, impairs progress in other subjects, and has undesirable social effects. Other studies have shown quite effectively that bilingualism has a favourable influence on mental development, promotes language development, has a favourable transfer effect to other subjects, and has desirable social consequences.

Why do these studies have conflicting results? There are many circumstances which change from study to study and will affect the results. Some of the circumstances which must be taken into account are the age of the learner and the type of culture in which he is living. Is it multilingual such as Switzerland or monolingual such as New England? What type of programme is he following? Is it an intensive course or a regular subject in the school programme? Does it stress audio-lingual skills or reading and writing? What is the criterion of achievement in the language? If the criterion of language success is the teachers' marks, it must be remembered that teachers vary both in the kinds of tests they set and the weight which they give to such matters as grammar, spelling and oral expression. What is the goal of the course of study the learner is following? Is it full fluency in the language or is the goal merely to pass the subject for academic credit?

These, then, are the points which must be kept in mind when examining the studies reviewed in the four categories.

RESEARCH STUDIES ON THE EFFECTS OF BILINGUALISM

A consideration of the effects of bilingualism is dependent upon theories of how a second language is acquired. There are, of course, numerous theories of speech behaviour which are different and often contradictory. Recently, however, a new theory of language has been proposed which has enormous implications for a study of bilingualism.

Theories of Bilingualism

In the field of psycholinguistics, Ervin and Osgood have proposed an exciting new theory of language which sheds new light on the nature of second language learning. In this theory, language is described as a decoding and encoding process which goes on within the nervous system of people. When a person hears or reads words, his decoding process comes into play. Osgood defines this decoding process as the interpretation of language reception:

> "Certain patterns of stimulation (usually auditory or visual) elicit certain representational mechanisms (ideas or meanings) via the operation of the complicated Central Nervous System."
>
> (Osgood and Sebeok, 1965, p. 126)

Conversely, when a person wants to say something, the language encoding system comes into play. This system thus deals with language expression and production. Osgood says:

> "The speaker's intentions become coded into those vocal reactions which produce intelligible sounds in a given language."
>
> (Osgood and Sebeok, 1965, p. 126)

If a person knows one language, he will have one set of encoding and decoding systems. If, however, he knows a second language, he must have two sets of these systems.

Osgood and Ervin also have a theory on how these two sets of linguistic codes will interact. A person can have what they call a "compound" language system, i.e. each word in the second language or linguistic code is associated with the meaning of the translation-equivalent word in the first language. Osgood explained it as:

> "Two sets of linguistic signs come to be associated with the same set of representational mediation process or meanings."
>
> (Osgood and Sebeok, 1965, p. 126)

On the other hand, a bilingual could have a "co-ordinate" language system, i.e the two codes would be completely separate and independent. Osgood explained it as:

> "One set of linguistic signs and responses appropriate to one language come to be associated with one set of representational mediational processes...the set of linguistic signs and responses appropriate to the other language become associated with a somewhat different set of representational processes."
>
> (Osgood and Sebeok, 1965, p. 126)

What determines whether one becomes a compound or a co-ordinate bilingual? Studies have shown that it is the context in which one acquires the language which determines this. (It should be noted that speakers of two languages are never completely pure compound nor completely pure co-ordinate bilinguals. Osgood said:

> "For any semantic area, we would expect speakers of more than one language to distribute themselves along a continuum from a pure compound system to a pure co-ordinate bilingual."
>
> (Osgood, 1954, p. 141)

Lambert, Havelka, and Crosby (1958) showed that experience in separated contexts increases the associative independence of translated equivalents in the bilingual's two languages. For example, if a child speaks one language at home and another at school with his teachers and friends, this will promote co-ordinate bilingualism, for he is using the two languages in completely different contexts. Learning a foreign language as a subject in the school situation will tend to foster compound bilingualism, especially if the method of teaching is translation or the learning of vocabulary lists, with each word having an equivalent word with the same meaning in the other language.

Other studies done by Carroll (1964) and Earle (1967) have lent support to the theory of compound/co-ordinate bilingualism. Lambert and his students have done much work in distinguishing the two systems. By investigating the relative reaction time for response to directions in two languages, word association tests in which the subject was allowed to associate to words in either of two languages, Lambert was able to identify "balanced" bilinguals, persons who had approximately equal skill in two languages (1955). Lambert, Havelka and Gardner (1959) investigated other tests such as facility in word completion, facility in detecting words in text run together without spaces, facility in oral reading and pronunciation of words spelled alike in the two languages, which correlated with the subjects degree of bilingualism.

The Effect of Bilingualism on Language Development

It is of great interest to both psychologists and linguists that bilinguals can communicate freely in either language. Many have speculated that, in theory, there ought to be a great deal of interference between the two language coding systems, especially in the case of the compound bilingual who has only one set of representational meanings for two linguistic codes. Among those who have stated their opinion that, theoretically, there ought to be interference, or deviations from the norms of either language, is Einar Haugen, who wrote that the compound bilingual will most likely "be constantly offending against the phonological, grammatical and lexical rules of the new language" (Ragsdale, 1966, p. 34). Uriel Weinreich saw possibilities for interference between expressions in two languages. For example, to a Yiddish bilingual, the Yiddish word "kolt" sounds like "cold." There might also be grammatical interference. A bilingual might carry over the Russian word order of subject + object + verb into English (Weinreich, 1963). However, despite these examples of interference, Weinreich thought that the amount of interference depended on other factors, such as the speaker's relative proficiency in each language, its usefulness in communication, the speaker's emotional involvement with each language (1963). Ervin and Osgood (1965) thought that the more nearly alike two languages were in their meanings the greater would be the chance that one set of language skills would interfere with the other. D. T. Hakes also guessed there would be interference between the bilingual's two languages. He said:

> "Interference operates not only in the learning and selection of the appropriate response in the appropriate languages, it operates at the grammatical level as well. To the extent that the grammars of the two languages are similar, but not identical, there will be interference."
>
> (Hakes, 1965, p. 225)

Mildred Donoghue's thoughts agreed with this guess:

> "In first language learning, each response becomes associated with a given stimulus, but in second language learning, two responses must become associated with the same stimulus, resulting in interference, or a negative transfer situation. By interfering with the acquisition of second responses, the first learned responses make learning more difficult for every lexical item in the second language except in those few instances where there is no word in the native language."
>
> (Donoghue, 1968, p. 48)

About the only experimental study which has investigated this language handicap in detail is Smith's work with bilingual Hawaiian school children. Smith's conclusions, as reported by Harry Singer, were that when a child hears both languages from the same source and/or changes from one language environment to another, especially from a unilingual to a bilingual one, there is a period of mental confusion until he forgets one of the two languages. He found that the language development of these children was retarded. The children confused the languages and were retarded seriously enough to interfere with their first grade work (Singer, 1956). In another study, Smith measured the vocabulary of bilingual children, aged 37 to 77 months. All were of Chinese ancestry, residents of Honolulu, and their parents' occupations, as measured by the Barr scale, were above the U.S. average. When the bilingual children were grouped at four age levels, their average vocabulary in either language fell far below the English vocabulary of monolinguals (Singer, 1965). Smith also discovered that foreign-language children, who began their study of the two languages sequentially made more vowel and reversal errors in the Gray Oral Reading Test, Iota Word Test, and Monroe Discrimination Test, which are the errors Monroe reported most clearly differentiated normal and retarded readers (Singer, 1956). It might be that the extremely young ages of the children had an influence on the results of this study.

This investigation of the speculations regarding the relationship between the types of bilingualism and skills in the native language are of special interest to educators who are worried lest children who are introduced to a second language will then develop trouble with their English. As indicated before, there is some speculation that there will be interference.

However, there are many studies which show that this is not the case, and that the learning of a second language can be helpful to the development of one's native language and to school achievement in general. Earlier in the chapter, it was noted that some investigators think that a person taught a second language in a way to promote compound bilingualism, as is the case of a school situation which emphasizes vocabulary and translation, will be more likely to develop interference between their two languages. Lambert and his associates have shown that this is not true. They investigated some American students enrolled in a six-week French summer course at McGill University in Montreal. Class instruction and out of class discussion was in French, a situation which should have fostered co-ordinate bilingualism. Lambert found, however, that the students permitted the two languages to interact:

> "Rather than encountering difficulty because of the interaction of their languages, these students are better able to acquire French by making use of interacting or compound linguistic systems."
>
> (Lambert, Gardner, Barik and Tunstall, 1962, p. 50)

It must be noted that, in this study, the criterion of French acquisition was final marks which included speaking, reading and writing and knowledge of French literature, etc. It is impossible to generalize from this about the relationship between the type of bilingualism and factors such as pronunciation.

The results of the Ragsdale study supported Lambert's conclusions. The subjects were thirty-six native speakers of Spanish from Latin America enrolled in "English orientation" classes at Louisiana State University (U.S.A.). They were given an English and a Spanish version of a nine-item semantic differential test to determine the type of bilingualism. Tests were then given in pronunciation and meaning. Results were that the closer a subject was to co-ordinate bilingualism, the greater the number of pronunciation and listening errors he was likely to make (Ragsdale, 1966).

Thus, these studies show that a person taught in a way which promotes compound bilingualism, as in the school situation, will not suffer from interference between the two languages.

The Effect of Second Language Instruction on School Achievement

Many parents and educators have wondered if the introduction of second language instruction in the elementary school will hinder the pupils' progress in other subject areas. Most studies show that this is not the case at all, provided the child is fluent in the medium of instruction used in the school. There will, of course, be problems if the child is being taught in a language which he has not adequately learned. This would be the case of an immigrant child who hears, say, Italian, in the home and who only imperfectly understands English, going to an English-speaking school and being taught all subjects in that language. But, in the ordinary case of a child going to school and being instructed in his native language and also being given classes in a second language, this will in no way harm his academic achievement. Charles Johnson experimented with two third-grade classrooms in Champaign, Illinois. The groups were equated in chronological age, mental age, arithmetic, reading and language arts. The experimental group was given instruction in Spanish for twenty-five minutes per day, while the control group continued with regular curricular activities. The two groups were given achievement tests at the end of the school year in arithmetic (number concepts, reasoning, computation), English language (punctuation, grammar), English reading (comprehension, vocabulary). In all but three categories, the experimental group showed greater gains than the control group (Johnson, 1961). However, Johnson himself points out some limitations: (a) the sample was small, (b) the average mental age of the experimental group was approximately five months above that of the control group, (c) each class was taught by a different teacher which means that the variable causing any difference could have been the type of instruction or the personality of the teacher (Johnson, 1961). However, in a second report, a couple of years later in which he experimented with ten fourth-grade classrooms, Johnson found that:

> "The pupils in this study who engaged in learning a second language for twenty minutes each school day showed no significant loss in achievement in other subjects as measured by the Iowa Every-Pupil Test of Basic Skills."
>
> (Johnson et al., 1963, p. 11)

In this case, the number of pupils was larger, the Iowa test instead of teacher marks was the criterion of achievement, and all instruction was of the audio-lingual type.

E. W. Lopato found the same results in a study of two third-grade classes in a New York City public school and two third-grade classes in a suburban metropolitan New York public school. He wanted:

> "...to determine whether a regular third grade class in a public elementary school could achieve satisfactory results in a program in beginning conversational French, without adversely affecting achievement in the existing curriculum."
>
> (Lopato, 1963,) p. 500)

The 114 students were equated for grade placement, age, intelligence, and socio-economic status. Conclusions were:

> "Results indicate that there was no adverse effect on achievement for the year in the prescribed curriculum by the introduction of the French program. On the contrary, the groups studying French evidenced greater mean achievement gain in seven out of eight instances, with the difference between the groups being statistically significant at better than the .01 level of confidence in three out of seven instances."
>
> (Lopato, 1963 p. 504)

In a three year study involving 4,611 pupils in grades four, five and six in St. Paul, Minnesota, Mildred Donoghue came to the same conclusions as the Lopato study (Donoghue, 1968). Marion Potts conducted a study to see if "second language (instruction will interfere) with beginning reading in the native language, and hence, with general school achievement" (Potts, 1967, p. 367). The subjects were 43 first graders and 37 second graders attending a New York State campus school. They were divided into control and experimental groups by random assignment. At the beginning of the year, all were tested with the California Test of Mental Maturity and at the end, all were given the California Achievement Test and the California Reading Test. While the experimental group received French instruction, the control group was given dance lessons. Results were that:

> "Under typical classroom conditions, there seems to be little chance for significant interference with learning the written system of the first language from the oral system of a second. This study found none, either in reading or in general achievement as related to reading."
>
> (Potts, 1967, p. 367)

While there seems to be a chance for interference with his native tongue for a pupil learning a second language in a school setting, it is still questionable whether this early exposure to a foreign language is of much value to him in later studies of that or another foreign language. Justman and Nass (1956) tried to measure the long-term effect of foreign-language instruction in the primary school. They found that high school students with previous foreign-language training tended to get slightly better marks than their controls in the first high school language course they entered, but were hardly able to maintain superiority in subsequent courses. However, there is no data given concerning the nature of the pre-high school instruction or the extent of student achievement in it.

Is There a Transfer Effect of Second Language Learning to Other Areas?

It is still questionable whether or not there is any transfer effect of the early language instruction on further language study (Carroll, 1960). It still remains to be seen if there is any transfer in the study of a language for either another language or another area of study.

Several studies have suggested that this transfer effect is indeed at work. Nancy Modiano conducted an extremely full and complete study among the Indians in the three tribal areas of Zinacantan, Chenalho and Oxchuc in the Chiapas highlands of southern Mexico. Students in matched schools in each of the areas were compared. Some attended monolingual Federal and State schools, in which all reading instruction was offered in Spanish. Others attended bilingual National Indian Institute schools, in which literacy was first taught in the pupils' native Indian tongue (Modiano, 1966). It was thought that the study would support the hypothesis, implicit in the North American educational policies that youngsters of linguistic minorities learn to read in the national language best when all their reading instruction is given in that language instead of in their native tongue. However, this study showed that when children who first learned to read in their mother tongue, in this case an Indian dialect, were compared with others who had received all instruction in the national language, in this case Spanish, a higher proportion of the former became literate in the national language and read it with greater comprehension (Modiano, 1966).

It may be that the rural setting of this study does not make it valid in a highly industrialized city such as Toronto. However, if accepted as valid, it means that an Italian-speaking immigrant child in Toronto would learn to read English better if he were first given instruction in reading Italian. Furthermore, Modiano's conclusions are supported by studies by Bertha Trevino and Maurice Kaufman. Trevino investigated the practice of bilingual teaching in Nye elementary school. The school population here is divided about evenly between English monolinguals and Spanish monolinguals. She concluded that:

> "The use of both languages encourages, promotes, facilitates, and accelerates academic achievement."
>
> (Trevino, 1969, pp. 24-25)

Kaufman's study dealt with seventh grade Spanish-speaking pupils in two New York City junior high schools. His conclusion was that instruction in the native language tended to facilitate reading ability in English.

> "Planned transfer of learning from Spanish to English has some value for improving reading ability in English of Spanish-English bilinguals who are retarded in reading English. Direct instruction in reading Spanish should be offered to Spanish-speaking retarded readers because of its potential value as a source of transfer to reading ability in English and because reading ability in Spanish has value in its own right."
>
> (Kaufman, 1968, p. 527)

One of the most spectacular studies in the transfer of learning is being conducted currently in Montreal under the direction of W. E. Lambert. It is now in its second year of operation. Last year, the experiment involved first grade children and this year was expanded to include the second grade. There were two experimental classes. One was of 25 children in one English elementary school in an English middle-class district, and another class of 13 in a second English elementary school in the same kind of district. All the children spoke English as a native language. Their only exposure to French instruction beforehand was a French kindergarten which all had attended for approximately two hours per day in the year preceding grade one. In grade one, these children were taught all their subjects in French. The only exception was their English instruction periods which were conducted in English. There were two English control classes and a French control class. Pupils in these three classes were schooled entirely in their mother tongues. These children were of the same intelligence range and socio-economic class as the pupils in the experimental group. A special attempt was made not to screen out any children from either the experimental or control classes who might be considered potentially slow learners (Lambert, Just and Segalowitz, 1969).

The results have been amazing. The experimental class of English-speaking children who were being schooled in French were equal to and in some categories even more proficient in English than the English control classes. Their pronunciation, comprehension, vocabulary and other skills compared favourably with the French control class. In tests of mathematical achievement at the end of grade one, they obtained the same level as the controls in both problem and computational arithmetic, with the testing conducted in English. Lambert writes:

> "This is a noteworthy outcome, suggesting that the information received through instruction and reading in French had gotten through to the child sufficiently to permit him to apply it effectively, even in English context."
>
> (Lambert, Just and Segalowitz, 1969, pp. 66-67)

At the end of grade two, they were ahead of the control classes in mathematical achievement. Lambert is cautious about over-emphasizing any beneficial effect of the programme on the pupils' mental development. He says:

> "There are no indications of cognitive retardation at either grade level that can be attributed to the experimental program. Nor is there any sign of intellectual advantage at either grade level."
>
> (Lambert, Just and Segalowitz, 1969, p. 67)

Although the results of this study are extremely spectacular and encouraging, there are certain limitations which Lambert wants to erradicate. Would this programme work with English-speaking children from different social class backgrounds and with lower intelligence scores? As Lambert says:

> "To be of general value to a region or nation that is serious about developing a bilingual and bicultural citizenry, then children from working-class backgrounds and those of limited intellectual endowment should be given every opportunity to capitalize on a program as promising as this one now appears to be."
>
> (Lambert, Just and Segalowitz, 1969, p. 69)

The Effect of Bilingualism on Mental Development

(Most studies quoted in this sub-section are taken from two secondary sources; Peal and Lambert (1967) and Darcy (1953).)

Much of the literature concerning the effects of bilingualism deals with its influence on the bilingual's intelligence. These studies of the effect of bilingualism on mental development divide themselves into three groups. First, there are those studies which find detrimental effects of bilingualism on intelligence. In this first group are also included studies which found that bilinguals scored lower than monolinguals on verbal intelligence tests, but as well as or better than monolinguals on performance or non-verbal tests. Secondly, there are those studies which found no effect of bilingualism on intelligence and thirdly, there are those studies which have found favourable effects of bilingualism on intelligence.

(a) Those Studies Which Show Bilingualism to Have a Detrimental Effect

A great many of the studies have found bilingualism to have a detrimental effect on a bilingual's intelligence. Saer in 1924 conducted a survey of 1400 rural and urban children in Wales. Some of these children were monolingual and others were bilingual. All were tested with the 1916 Stanford-Binet scale and for those who used Welsh as a mother tongue, a Welsh translation of the test was used. Results showed a very significant inferiority of rural bilingual children when compared with rural monolingual children. There was no significant difference between bilinguals and monolinguals in the urban group (Peal and Lambert, 1967). Saer explained this by attributing "mental confusion" to the bilinguals. However, there are definite limitations to the validity of this experiment. No attempt was made to match the monolinguals with the bilinguals with regard to socio-economic background, home language and age of each child. Also, it is doubtful if a Welsh translation of the standardized Stanford-Binet scale is equivalent to the test in the language in which it was first standardized.

In 1932, Pintner administered the Pintner Non-Language Tests and the Pintner Language Test to monolingual and bilingual children in three New York City schools. Results were inconclusive. In one school, the monolinguals were superior in both. In another, they were inferior, and in the third, there was no difference. It should be noted that there was no control of the socio-economic background of the subjects, and there was only a very general determination of bilingualism.

Another study in Wales was done by Jones and Stewart in 1951. Both a verbal and a non-verbal test was given to monolingual and bilingual groups in rural districts. The children were between ten and a half and eleven and a half years old. On both, the monolinguals scored higher. The socio-economic background of the subjects was, once again, not controlled, and Jones later conceded that the difference in the non-verbal test scores may have arisen from this rather than from the linguistic factor. Also, the translations of the test were not standardized in the Welsh culture.

A study was done by Anastasi and Cordova of 176 Puerto Rican boys and girls in the sixth, seventh, and eighth grades of a New York City school. They were tested with a non-verbal test -- the Cattell Culture-Free Test. It was administered in both English and Spanish. The authors found that the scores of the group fell considerably below the test norms given by Cattell. The authors tried to account for this by the very low socio-economic level of the Puerto Rican children, their bilingualism which makes them deficient in both languages, their lack of test sophistication, and their poor emotional adjustment to school (Anastasi and Cordova, 1953).

In South Wales, Smith studied bilingual and monolingual subjects from 8 to 11 years old in rural schools. On all four tests administered, the monolinguals were found to be superior to the bilinguals. Once again, the two groups were not matched for age or socio-economic status.

There are many studies which show this inferiority of bilinguals to monolinguals on tests of intelligence. Almost all of these studies, as has been shown, lack controls for age and socio-economic background, and in many, the degree of the pupils' bilingualism is not adequately measured. Other studies in this category are Graham (1925), Mead (1927), Rigg (1928), Wang (1926), Colvin and Allen (1923), Jamieson and Sandiford (1928).

Another group of studies show a bilingual group scoring lower than monolinguals on verbal intelligence tests but higher on non-verbal or performance intelligence tests. In 1937, Seidl administered the 1916 Stanford-Binet scale and the Arthur Point Scale of Performance to a group of 9 to 11-year olds closely matched on sex and age. A questionnaire was used to determine the degree of bilinguality. The monoglots were superior to the bilinguals on all verbal tests while the results were reversed on the performance tests. However, there was no person-to-person matching between the two groups with respect to socio-economic status. The median for the monolingual group was in the Skilled Labour class while the median for the bilingual group was Semi-Skilled Labour.

Darcy in 1946 classified 212 American pre-school children, aged two and a half to four and a half years, as monolingual or bilingual by a rating scale. The two groups were matched for age, sex and socio-economic status. The children were tested with the 1932 Stanford-Binet scale and the Atkins Object-Fitting Test. The bilinguals scored lower than the monolinguals on the Stanford-Binet but significantly higher on the performance test. However, the subjects were so young, it is doubtful if the results are valid.

Pintner and Keller in 1922 found the same results when they administered the Stanford-Binet scale and the Pintner Non-Language Group test to one English-speaking group and one immigrant group. However, no measures of bilingualism were used and no mention was made of the social status of the children's families. The same results were found by Johnson, 1953 and Levinson, 1959.

(b) Those Studies Which Show Bilingualism to Have No Effect

Some studies have found no effect of bilingualism upon measures of intelligence. Darcy in 1926 studied groups of American and Japanese children. The 1916 Stanford-Binet scale and the Army Beta Test were administered to 686 children between the ages of 10 and 15. On some tests, the American-born children were superior while on others, the Japanese children were superior. But, the social class background of the two groups was not comparable.

Pintner and Arsenian in 1937 conducted a study of 459 Jewish children in New York City. All of the children were Yiddish-English bilinguals, and were tested with the Hoffman Bilingual Schedule to determine degree of bilinguality. The 20% receiving the highest scores were called the high bilingual group and the 20% receiving the lowest scores were called the low bilingual group. When tested with the Pintner Language Test and the Pintner Non-Language Test, there was found to be no difference in the verbal and non-verbal I.Q.'s of the two groups (Pintner and Arsenian, 1937).

Arsenian in 1937 conducted an experiment with American-born Italian and American-born Jewish children. He controlled the study well with regard to age, sex, social background and measurement of bilingualism. The tests used were the Pintner Non-Language Test and the Spearman Visual Perception Test. No difference in intelligence was found between the two groups. However, no test of verbal intelligence was given and the number of subjects -- 38 bilinguals and 38 monolinguals -- was very small.

Spoerl also found no difference in intelligence between groups of monolingual and bilingual college freshmen, matched for sex, age, intelligence and social class. Other studies which have found the same results are Hirsch, Lester and Hill.

(c) Those Studies Which Show Bilingualism to Have a Favourable Effect

Until recently, few studies found that bilingualism had a favourable effect on mental development. In 1927, Davis and Hughes, in a study in London, England, found that Jewish children were superior to non-Jewish children in arithmetic, English and general intelligence. But, the Jewish children were simply assumed to be bilingual and there was no control of age, sex or social class.

Some recent, well-controlled studies have shown bilinguals to be significantly superior in intelligence. Peal and Lambert conducted a study in 1962 in Montreal of two groups of French-Canadian children. One group was clearly monolingual in French and the other group was clearly balanced bilingual. Thus, both groups had French as a main language but the bilingual group had also learned English. The groups were also equated on age, sex and socio-economic status. The results were that bilinguals were significantly superior to monolinguals on both verbal and non-verbal tests. The tests used were the Raven Progressive Matrices and the Lavoie-Laurendeau Non-Verbal and Verbal I.Q. Thus, it can be concluded that bilingualism will have a favourable effect on mental development if the bilingual is tested in his first language, on a test standardized to his environment, and if he is compared with monolinguals of the same age and socio-economic status. Lambert speculated that this favourable effect of bilingualism on mental development might be the result of an ability to think in terms of abstract concepts, independent of the actual word. Since a bilingual knows two words for the same event or object, they are forced to conceptualize these in terms of their general properties instead of their linguistic symbols (Lambert and Peal, 1967). Lambert also qualified the results of his experiment by noting that the bilinguals may have performed better because of the favourable effect of their bilingualism on their mental development, or just because of their overall superior intelligence. Less intelligent bilinguals would not have been considered "bilingual" enough for the study.

The same results were obtained by Liedtke and Nelson at the University of Alberta. They concluded that bilinguals were intellectually superior, possessed greater verbal skills, exhibited greater mental flexibility, were more facile at concept formation and achieved higher grades at school (Liedtke and Nelson, 1968).

The Effect of Bilingualism on Social Adjustment

Some older studies predicted dire effects on the character of a person who learned two languages. Weinreich (1963) quoted Gali as suggesting that bilingual persons may be morally depraved because in their childhood they did not receive adequate religious instruction. Bossard examined seventeen case documents and concluded that bilinguals are forced to develop some "protective devices" such as a restrained manner of speaking, inconspicuous behaviour, home avoidance and meticulous English (Weinreich, 1963). Others who have noted the ill effects of childhood bilingualism are Haugen (1956), Lado (1957), M. E. Smith (1957) and Arsenian (1945) (Modiano, 1966).

D. T. Spoerl conducted a survey in 1943 of 101 bilingual freshmen at the American International College. They were matched with an equal number of monolingual freshmen for age, sex and, in some cases, socio-economic status. The author determined emotional adjustment from college mortality figures, interviews, Bell Adjustment Inventory Scores, Allport-Vernon Study of Values results, Bogardus Test of Social Distance data, performance on a modified Kent-Rosanoff Association Test, and reactions to the Morgan-Murray Thematic Apperception Test. Spoerl found evidence of consistently greater emotional maladjustment and conflict among the bilinguals (1943).

However, Spoerl did not think that this maladjustment and conflict was actually caused by bilingualism per se. Rather, she felt that it was a result of their minority status and of acculturation and family conflicts. Many writers agree with this theory. Weinreich thought that the effects of bilingualism function as a culture-complex pattern and not as a direct handicap against the individual (1963). Soffietti also insisted on keeping a clearcut distinction between "bilingualism" and "biculturalism." He wrote:

> "Most of the difficulties and retardations indiscriminately ascribed to bilingualism are rather due to the bicultural aspects of the situation under consideration. It is the living in two distinct cultures either overtly or in one's internal life that might create problems of adjustment. It is a conflict between ways of life, beliefs, customs, value systems and not necessarily one between language systems."
>
> (Soffietti, 1955, p. 228)

Harry Levine points out that in Switzerland where most people are not only bilingual but trilingual, one can find people who would have to be judged among the best socially and emotionally adjusted in the world (1969).

For a child learning a second language in a normal elementary school programme, there seems to be no chance that he will suffer any maladjustment, for he does not have to contend with the effects of biculturalism. Dr. H. Singer agrees:

> "This writer could find no evidence that a second language, which is learned sequentially, remains a second language, and does not compete continuously with the vernacular, causes any detrimental emotional effect or damages to the emotional organization of the individual."
>
> (Singer, 1956, p. 454)

RESEARCH STUDIES ON
THE AGE OF THE LEARNER

Those people who support FLES (Foreign Languages in Elementary Schools) programmes are usually enthusiastic advocates of the view that early childhood is the optimum period in a person's life for learning languages. In underlining the need for foreign language instruction in the elementary schools, Ruth Cornfield insists:

> "We have not succeeded in getting the message abroad, namely, that it has been proven that physiologically and psychologically, it is efficient and therefore desirable to start the serious study of a foreign language when the student is young. We know this because we have heard this so often, but we have not been getting the word out to other people, sometimes not even to other educators."
>
> (Cornfield, 1966, p. 496)

D. D. Walsh echoes this idea of an optimum age for language learning:

> "It will not be news that the early years are the ideal time for the beginning of language learning...language learning at this age is not only easy, it is practically unconscious."
>
> (Walsh, 1968, p. 424)

There is little experimental or research evidence to bear out this assertion that children learn languages better or more easily than adolescents or adults. This idea is based largely on an extrapolation made by Wilder Penfield, a Canadian neurosurgeon.

Penfield feels that there is a biological "time-table" of cerebral hemispheres which permits rapid learning in the child up to the age of ten or twelve. There is a large area of cortex underneath the temples and covering a part of each of the two temporal lobes which is uncommitted at birth. Penfield calls this uncommitted cortex a "blank slate" on which nothing has been written (Penfield, 1964). This cortex is divided into two identical hemispheres. When the child begins to speak, the posterior half of the left uncommitted cortex is used for this function and becomes the dominant hemisphere. (In the case of a left-handed child, the right hemisphere is used for speech and becomes the dominant hemisphere.) Meanwhile, "the areas of the right hemisphere which are homologous to those used for speech on the left, seem to serve no discernable purpose while the areas remained intact on the left side." (Penfield, 1964, p. 204). As the child grows older, this part of the uncommitted cortex which is not used for speech gradually becomes used for the interpretation of experience. Functional connections are thus gradually established until, by about the child's twelfth year, the general uses of the uncommitted cortex are fixed for life.

Penfield cites in support of this theory observations of injury to the dominant hemisphere of the brain. If the dominant area is injured in a child, he might lose the power of speech for a while but, in a fairly short time, the capacity for speech will be transferred to the cortex of the lesser hemisphere, for in a child, this area has not yet established its functional connections. However, Penfield observed that, in an adult, the substitution of the lesser hemisphere for a damaged dominant one is no longer possible.

> "Capacity of substitution of one hemisphere for the other is truly amazing during infancy. But, once functional localization of acquired skills has been established, the early plasticity tends to disappear."
>
> (Penfield, 1953, p. 206)

Thus, after the age of ten or twelve, the speech centre cannot be transferred to the cortex of the lesser side which, by then, is fully occupied with its own business of perception.

From these observations, Penfield extrapolates that --

> "...the uncommitted cortex must be conditioned for speech in the first decade."
>
> (Penfield, 1964, p. 81)

Thus, languages should be taught while the child is very young, to take advantage both of the plasticity of the brain and --

> "...a remarkable switch mechanism that enables him to turn from one language to another without confusion, without translation, without a mother-tongue accent."
>
> (Penfield, 1964, p. 80)

Many researchers into the phenomenon of second language learning support Penfield's extrapolation. In 1956, the Modern Language Association of America held a conference of scholars and teachers of language. Among those present were Penfield and Lamar Roberts, experts in neurophysiology, Uriel Weinreich and Werner Leopold, specialists in bilingualism, and Arnold Gesell and Frances Ilg from the field of child development. The conference came to the conclusion that --

> "The optimum age for beginning the continuous learning of a second language seems to fall within the span of ages 4 through 8, with superior performance to be anticipated at ages 8, 9, 10. In this early period, the brain seems to have the greatest plasticity and specialized capacity needed for acquiring speech."
>
> (Valdman, 1966, p. 263)

Theodore Andersson expressed the view that the optimum age for language learning probably lay in the very early years (Andersson, 1960).

Mildred Donoghue agrees:

> "Ideally, the age for beginning the learning of a second language is at birth. But, when considering language learning in relation to schooling, the optimum age for beginning the learning of a second language seems to fall within the span of ages four through eight, with superior performance anticipated at ages eight, nine or ten."
>
> (Donoghue, 1967, p. 11)

Lorge and Mayans (1954) concluded from their survey that where the language milieu was favourable, children will learn second languages in school settings, particularly when they have an opportunity to talk to children who have already mastered the language. Williams notices that --

> "...the earlier a child is introduced to a second language the better."
>
> (Williams, 1963, p. 229)

and Villegas concluded that --

> "...the optimum age for beginning the continuous learning of a second language seems to fall within the span of age four through eight."
>
> (Villegas, 1958, p. 136)

Nicholas Hobbs shares this view, though more cautiously:

> "It is commonly said that a child can learn to speak a language more readily than an adult because his vocal mechanisms are more flexible, his speech habits less binding. This seems to be reasonable though I have been unable to find experimental evidence showing that learning during this period of special facility has special value. I am willing to accept the observations of linguists on this point, while hoping that we will soon have data showing quantitatively how much permanent advantage in language learning goes with youthfulness."
>
> (Hobbs, 1953, p. 18)

In a paper delivered at the 21st University of Kentucky Foreign Language Conference held at Lexington in April, 1968, Donald Walsh put forward Penfield's theory as proof of the advantages of teaching languages to young children (Walsh, 1968).

Some studies and experiments have indeed provided evidence that young children can learn languages well. The Soviets have had remarkable success in teaching foreign languages to children of pre-school age, and concluded that --

> "...they learn a foreign language more quickly, better and more permanently than children of school age."
>
> (Bloch, 1968, p. 83)

An extensive research programme on foreign language instruction to young children was begun in 1955 by Dunkel and Pillet at the University of Chicago elementary school. The programme of twenty minutes of French instruction per day was given to unselected children in grades three and four. At the end of the second year, the rating of the children's pronunciation was as follows (Dunkel & Pillet, 1962):

	Per Cent of Third Grade Starters	Per Cent of Fourth Grade Starters
Excellent	9	14
Very Good	35	38
Good	40	37
Inferior	14	11
Poor	2	0

Results of aural comprehension tests at the same time were as follows:

Per Cent of Correct Answers	End of First Year		End of Second Year	
	Per Cent of Third Grade Starters	Per Cent of Fourth Grade Starters	Per Cent of Third Grade Starters	Per Cent of Fourth Grade Starters
75 - 100	4	14	25	58
50 - 74	33	39	70	40
25 - 49	55	26	5	2
0 - 24	8	1	0	0

After teaching German in the first, third and sixth grades, Max Kirch concluded that --

> "...the ability of all children to reproduce foreign sounds not present in English, seem to be in inverse proportion to their age."
>
> (Kirch, 1956, p. 399)

He recommends the teaching of foreign languages from the first grade.

Thus, there is some evidence that children can learn languages well. But, there is considerable doubt that childhood is the only time, or even the best time to learn languages.

Even at the end of the second year, Dunkel and Pillet observed that --

> "...the children's ability to speak spontaneously was somewhat disappointing when put to impromptu test."
>
> (Dunkel and Pillet, 1962, p. 83)

J. B. Carroll noted that true cases of child bilingualism generally occur when both languages are learned in a natural setting, i.e. the child hears one language from one parent and another language from the other parent, or the child uses one language at home and another at school. If the child learns language as a subject in school, he will not miraculously become a bilingual. In the report on the 1963 Hamburg UNESCO Conference on Foreign Languages in Education, H. H. Stern gave examples of rapid learning of second languages, usually English, by young children in African or Asian countries. Stern suggests, however, that there is another factor besides age behind this success. Motivation, which will be discussed in another chapter, is crucial.

> "It must, however, be remembered that the languages were learned under special pressures. Education was and still is, in short supply. To go to school was a privilege and educational advancement depended on success in the second language. Hence, the motivation to succeed was high. To some extent, the good results are those of limited and selected groups of children working successfully in spite of their teachers and the poor methods employed."
>
> (Stern, 1963, p. 32)

In 1928, after observing practical teaching experiments, E. L. Thorndike concluded that when learning time was held constand for the two groups, children made less rapid progress in language learning than did adults, except for pronunciation (Donoghue, 1967). In 1960, J. B. Carroll reviewed the evidence about the assumption that children are better language learners. His conclusion was that --

> "...except possibly with regard to the learning of pronunciation, there is considerable doubt that young children learn foreign languages any better and faster, given the same opportunities and amount of time."
>
> (Carroll, 1960, p. 13)

Carroll thinks that the time spent is a more crucial factor than age itself.

> "Aside from this (pronunciation) however, it is probable that given equal time, aptitude and motivation, adults can learn to speak foreign languages with at least the same amount of ease or difficulty that children experience...it is a mistake to recommend foreign language study in the elementary school solely on the ground that children are quicker foreign language learners...all the more so because this ground is partly erroneous."
>
> (Carroll, 1960, p. 132)

In 1934 Henmon concluded from the results of his research that --

> "...if it is desirable or necessary to do so, adults can acquire a foreign language as easily in their adult years as in earlier years."
>
> (Henmon, as quoted in Gage, 1963, p. 1090)

David Ausubel stated that --

> "...adults can acquire new languages more readily than children."
>
> (Ausubel, 1964, p. 420)

In the report of the UNESCO Conference in Hamburg on Foreign Languages in Education (1963) H. H. Stern concluded that --

> "...it is hardly even theoretically possible to envisage one optimum period, nor is it in the interest of a second language teaching policy in the primary school to overemphasize the merits of an early start."
>
> (Stern, 1963, p. 22)

and, very recently, H. J. Feenstra, psychologist with the London, Ontario, Board of Education (1968) said that it was a mistake to teach a second language in kindergarten or grade one. He said that research in Montreal had indicated that persons taught a second language at a very early age rarely achieved command in either language (Feenstra, 1968).

In the United States, the armed forces have had remarkable success in teaching adults to speak foreign languages. In the Army Specialized Training Program, subjects were given a minimum of fifteen hours of instruction per week for a total of 36 weeks -- 540 hours in all. Gage (1963) reported two studies, one by Cheydleur and Schenck, and another by Schenck at the University of Wisconsin. An ASTP unit was compared with college groups on the American Council on Education German Reading Test. The attainment of the ASTP group stood at approximately that of college groups who had had six semesters of college German. The results were that:

> "...the army group median on the whole group is ten points higher than the national median. These results are of particular interest inasmuch as they indicate the extent to which a reading ability was developed when speaking ability was the primary aim of instruction."
>
> (Gage, 1963, p. 1090)

Thus, it has been successfully shown that adolescents and adults can learn foreign languages.

To sum up, one can see that, after reviewing research opinion and studies which have tried to determine the best age for language learning, there is a great deal of conflict of opinion. Some educators such as Ruth Cornfield, Donald Walsh, Nicholas Hobbs, and Mildred Donoghue feel strongly that early childhood is the best time for foreign-language instruction. This view is based on observations made by specialists in child development and especially on an extrapolation made by Wilder Penfield. Penfield drew his conclusion of childhood being the only time to learn languages successfully from certain observations made during his career as a neurosurgeon.

However, support can be found for the view that adults and adolescents can also learn languages successfully. An experiment at the University of Chicago by Dunkel and Pillet (1962) showed that young children did indeed profit from language instruction, but that some results of the study were disappointing. Thorndike and Henmon (1928) (as quoted in Gage, 1963) have both reported studies which show successful language learning by adults. Army training programmes furnish further proof of this.

Evidence regarding an optimum age for language learning is thus very inconclusive. Children can and do, learn many aspects of language extremely well. Adults, however, given sufficient time and motivation, are also extremely successful in acquiring a second language.

RESEARCH STUDIES ON LANGUAGE APTITUDE

When the decision is made to set up a programme of foreign language instruction in an elementary school, there is a basic problem which must be faced: who shall be admitted to the programme? Shall all pupils at a given grade level be admitted or shall some selection of these pupils be made?

In general, most educators and advocates of elementary school foreign-language programmes take the view that all pupils should be given instruction, at least initially until it can be seen which ones will genuinely benefit by such a programme and which ones would do better to drop their study of a foreign language.

Dunkel and Pillet said of their programme:

> "We believed that if foreign languages were a suitable study for the elementary school, they should be available to all children just as in our school all children take science, mathematics and the rest."
>
> (Dunkel and Pillet, 1962, p. 12)

Bourque quotes William R. Parker as saying that:

> "Even though it is an obvious truth that some students learn something or anything faster or better than other students or that some students do develop a seeming mental block against some subjects — it is not possible to deduce a third truth — that foreign languages may be elected for study by part of the population but not by another part because they lack sufficient aptitude."
>
> (Bourque, 1968, p. 10)

Why do most educators agree that all students should be given a chance to learn a second language? The reason is that it is extremely difficult to determine which students possess an aptitude for languages. Quite a few studies have been done, and many opinions given, in an effort to shed some light on the nature of language aptitude. In general, these studies and research divide themselves into two. Some examine the validity of certain factors, such as intelligence, in providing an insight into selecting those persons who possess language aptitude. Others assume that a series of abilities make up language aptitude and try to isolate and measure these specific abilities.

Let us first examine the studies in the first category -- those that try to use certain factors in the prediction of language aptitude

This first category assumes a relationship between certain factors or clues and the success of pupils in learning a foreign language. One of the common factors used in the prediction of language success is pupil intelligence or I.Q. scores.

During the school years 1959-60 and 1960-61, Barbara von Wittich conducted a study of 230 ninth grade students in first year foreign language courses at Ames, Iowa, Senior High School. The pupils' I.Q. scores ranged from 89 to 139. The criterion of success in the course was teacher marks (von Wittich, 1962). All the students were tested for I.Q. as measured by the Otis Quick Scoring Mental Ability Test, Beta Test. Their English grade point average, as revealed in their eighth grade marks, was calculated, as was the mathematics grade point average of the eighth grade and the total grade point average of the eighth grade. Von Wittich's results showed that the I.Q. scores had the lowest correlation with foreign language success, as measured by teachers' marks.

However, in judging the conclusions of this study, it must be remembered that some controls were lacking. The socio-economic background of the pupils was apparently not taken into consideration. Also, the intelligence tests were all of the verbal kind. Non-verbal or performance

I.Q. was not tested. Also, the age of the subjects is very important. Von Wittich declared that:

> "...the results [of the study] based on statistical evidence permit the assumption that the predictors found probably also could be applied to other school levels."
>
> (von Wittich, 1962, p. 208)

However, it is very possible that different results might have been obtained with a younger sampling of pupils, especially if they were being taught by an audio-lingual method, or with an older group of adults.

Dunkel and Pillet (1962) also found intelligence to be a poor predictor of pupils' success in their elementary school foreign language programme. This programme was instituted in grades three and four of the University of Chicago elementary school. Most of the children's parents were connected with the University. Thus, the children might have a higher economic and cultural background than the average. Dunkel and Pillet found that I.Q. scores did not correlate very highly with the actual foreign language performance of these third and fourth graders. They concluded:

> "The I.Q. proved to be of limited usefulness. The result might well have been expected since the I.Q. usually does not correlate highly even with reading ability in English at the third grade level...."
>
> (Dunkel and Pillet, 1962, p. 62)

In fact, they found that often, pupils with high intelligence did relatively poor work in language courses:

> "These highly intelligent, highly verbal, creative students often find the step by step process involved in language mastery either unfamiliar or uncongenial. Much of their customary academic success has come from relying on intelligence and insight rather than on diligence and concentration....In our own classes, less well-endowed children who settle down and work at mastering the language consistently outperform much more gifted individuals who keep hoping that their undeniable brilliance will somehow see them through."
>
> (Dunkel and Pillet, 1962, p. 6)

Dunkel and Pillet also wanted to see if teacher ratings of a child's intelligence and academic potential had any bearing on foreign language success. Accordingly, second-grade home room teachers were asked to rate their pupils in the areas of academic achievement and general personality characteristics. These were the pupils who subsequently began French study in the third grade. After comparing teacher ratings of the child's intelligence and potential and his actual performance in French study, they concluded:

> "The ratings do tell us something. They do correlate positively with actual performance. But the correlation is of such a low order that the ratings should not be used for ratings in individual cases. Thus, had we used them with this class, we would have properly eliminated in advance half our poorest students. But simultaneously, we would have deprived of the opportunity to learn French an even larger number of students who actually demonstrated their ability to profit from the course."
>
> (Dunkel and Pillet, 1962, p. 66)

Thus, Dunkel and Pillet concluded that I.Q. scores or teacher ratings of pupil ability and intelligence were not valid ways of predicting those who would be successful in a foreign language course.

Paul Angiolillo demonstrated also that intelligence was not a vital factor in learning a foreign language, at least in the initial stages, before the introduction of reading and writing. He had remarkable success in teaching retarded girls who had I.Q.'s ranging from 40 to 75, to understand and speak French (Angiolillo, 1942).

However, this experiment clearly has a limited application. These girls had extremely low I.Q.'s not found in a normal classroom, and were receiving careful individual attention. Despite the findings of studies such as von Wittich's and Dunkel and Pillet, other experiments have found high correlations between intelligence and foreign-language success, even in an audio-lingual programme, where Angiolillo seemed to demonstrate that intelligence is not important.

Helen Fielstra studied 351 elementary school pupils in the Beverly Hills United School District. Her goal was:

> "...to determine relationships between pupil achievement in foreign-language learning in an audio-lingual programme at the elementary school level and certain selected factors."
>
> (Fielstra, 1967)

Students were given the Beverly Hills District Placement Test (FLES Achievement) and the Modern Language Association Cooperative Foreign Language Tests of competence in listening, speaking, reading and writing of the foreign language they were studying (either French or Spanish). The predictor variables selected were language I.Q., non-language I.Q., achievement in the English language — reading comprehension, vocabulary, capitalization, punctuation, grammatical usage and spelling — achievement in arithmetic reasoning, concepts and computation, teacher ratings of pupil success in speaking and in comprehension of the foreign language, chronological age, sex of the pupil, and the number of years in the FLES programme. Among all these factors, the results indicated that language I.Q. had the strongest relationship with success in the programme. She concluded:

> "Language I.Q. correlates highly and significantly with pupil success in FLES and except for teacher ratings it is the best single predictor, among those used in this study, of such success."
>
> (Fielstra, 1967)

However, there is no mention made of the socio-economic background of the pupils which might affect either or both I.Q. and achievement. Another important factor is the range of pupil ability: the less homogeneous and the greater the variability within a group, the greater will be the relationships which can be found.

Socio-economic data are also lacking in the Ronald D. Kaugas study. This experiment involved all seventh grade students studying Spanish, German or French at the Frank B. Kellogg Junior High School in Rochester, Minnesota. The criterion of success was final grades in the course. All students were tested with the Iowa Test of Basic Skills — Language Total and the Lorge-Thorndike Verbal, which measures I.Q. Results showed very high correlations of both the I.T.B.S.L. and the L.T.V. with achievement, as measured by final grades, with the I.T.B.S.L. having the highest correlation (Kaugas, 1965).

As noted above, there was no control of the pupil's cultural, linguistic and economic background and no control of age, except that all the pupils were in the seventh grade.

Thus, the relationship between intelligence and success in a foreign language course is hard to pin down. The von Wittich study of ninth grade pupils and Dunkel and Pillet's experiment with third and fourth graders found that I.Q. had only a limited relationship with foreign-language achievement. On the other hand, Fielstra, in dealing with pupils who had just graduated from an elementary school FLES programme, and Kaugas, who studied seventh graders, found relatively high correlations between I.Q. and pupil success. The various ages of the pupils, various methods of instruction and lack of control of the pupils' backgrounds doubtless account for some of the difference. Yet there are contradictions. From Angiolillo's results, one would expect that pupil success in an audio-lingual type of programme would not have much relationship to intelligence measures. Yet, Fielstra's results show that language I.Q. scores are good predictors of success in an audio-lingual programme. Neither the type of programme nor the measures of language success were similar in this conflicting evidence.

If intelligence or I.Q. does not provide a dependable clue to the successful prediction of language aptitude, are there other factors which can give an insight? Some educators think that grade point average would be a good predictor of second-language success. If a child were doing well in school in all of his subjects, does this not mean that he would also do well in foreign language study? To support this, the von Wittich study, described above, found that the grade point average showed the highest correlation with foreign language success (von Wittich, 1962). However, this study is subject to the limitations pointed out above. Dunkel and Pillet found that the fact that a second-grade pupil is doing well in school and his teacher has a high opinion of his ability, is no proof that he will do well in the third-grade French programme.

Some research studies have tried to find a clue to language achievement in an audio-lingual type of course in musical ability. In reviewing the literature on the relationship of a musical ability to success in a second-language course, Blickenstaff cited the research of Dorcus, Mount, and Jones (1952). They found a relationship between pitch discrimination and achievement in foreign languages in the high school, college and intensive course levels (Blickenstaff, 1963). However, in Dunkel and Pillet's Chicago programme, which was an audio-lingual course in the elementary school, a test of listening, the Seashore Music Test, had only a low correlation with success in the programme.

After reviewing the literature, it can be said that none of these clues or factors such as intelligence or grade point average, can predict with validity those persons with aptitude for learning a foreign language. In a recent study of clues presently in use for the selection of pupils for admission into FLES programmes, Ilo Remus concluded:

> "None of the criteria...singly or in combination is of sufficient validity to justify its use as a basis for the exclusion of potential foreign language students."
>
> (Bourque, 1968, p. 10)

To examine the second category of research into language aptitude one observes that these studies try to isolate and to measure the specific abilities which make up language aptitude.

The idea that there is a series of specific abilities related to second language learning was emphasized by Gardner (1960) and Lambert (1963). They theorized that learning a second language involves two tasks. The first is the acquisition of a new linguistic code. A person has to learn new and different symbols to represent various concepts. This emphasis on the acquisition of a new linguistic code stresses the role of specific abilities in learning this code and thus, a second language. The second task is to acquire the cultural behaviour patterns characteristic of the linguistic groups whose language is being studied. The importance of this will be discussed in the chapter on motivation.

Other studies too have the idea that a series of abilities is related to second language achievement. Dorcus, Mount and Jones (1952) found high correlations between early and final examinations in the eight month intensive courses of the Army Language School. From this, they inferred that "important factors do exist for the prediction of language proficiency." (Gage, 1963, p. 1087). Henmon (1929) demonstrated that measures of specific language learning ability were more predictive of achievement in second-language learning than were indices of general intelligence. Another study, however, Wittenborn and Larsen (1944) went against this view that definite abilities made up language aptitude and accounted for success in second-language learning. They concluded that much of the variance common to language aptitude measures was related to intelligence and not to second-language achievement (Feenstra, 1968).

Despite Wittenborn and Larsen, almost all the studies which have gone into the nature of second language learning in depth have assumed that language aptitude consists of a series of abilities.

Carroll has done a great deal of work in probing the nature of language aptitude. His definition of aptitude is that:

> "...it is an invariant characteristic of the individual, not subject to easy modification by learning — [it is a relatively stable] personal characteristic — made up of various skills."
>
> (Carroll, 1960, p. 131)

Obviously, not all people will possess these skills or abilities. Hence the wide variation in the ability of people to learn second languages. Those people who possess the skills will learn foreign languages easily; those who do not possess these abilities will have a harder time. Carroll said:

> "One thing of which I am reasonably well convinced from research findings is that people differ among themselves greatly in the ease and facility with which they can learn foreign languages....The differences are so great, in fact, that in situations where money is to be invested in the special intensive training of adult personnel in a foreign language — as in military forces, foreign missionary organizations, and business corporations operating in foreign countries — only about one-third to one-half of typical samples of candidates have sufficient measured language aptitude to make this training economically worthwhile; that is, the chances are too high that the remainder will fail the drastically accelerated training which has to be given in these special circumstances. The results also suggest that for a certain percentage of college students, perhaps as high as 10 to 15 percent, the chances of eventually learning a language to the point of practical usefulness are so small as to call into question the desirability of maintaining absolutely rigid language requirements in colleges and universities.

> Differences in what we may call foreign language aptitude are observable not only in adults and in college student populations but also in elementary school children and in high school students. Furthermore, at all levels, the differences show considerable independence from differences in general intelligence. For example, several years ago, I gave tests of foreign language aptitude to 'gifted' children in grades 3, 4, 5, and 6 in Cleveland, Ohio, where the famous 'Cleveland Plan' of foreign language instruction for talented children has been in effect for many years. The average I.Q. of these children was approximately 125, but the interesting thing was that even these children varied considerably in their rate of foreign language learning, and that this rate was predicted better by special foreign language aptitude tests than by intelligence ratings."
>
> (Carroll, 1960, p. 131)

Carroll went on to try to isolate these skills which make up language learning aptitude. After analyzing tests administered to two different samples of Air Force personnel enrolled in a one-week trial course in Mandarin Chinese, Carroll (1958) concluded that language achievement was related to three abilities — linguistic interest, associative memory, and inductive language learning ability (Carroll, 1958). Subsequently, Carroll and Sapon (1959) and Carroll (1963) concluded that language aptitude consisted of the above three abilities, plus sound-symbol association and verbal knowledge, and that grades in a foreign-language course correlate higher with these measures of language aptitude than with intelligence.

This research became the basis of Carroll and Sapon's Modern Language Aptitude Test which is "...useful in predicting success in learning to read, write and translate a foreign language." (Bartley, 1969, p. 49).

In 1963, Carroll reviewed the progress made in the prediction of success in foreign language courses.

> "1. [Language aptitude is] '...a fairly specialized talent (or group of talents),...relatively independent of those traits ordinarily included under 'intelligence'....'

> 2. It is possible to predict success in intensive language courses with high validity by means of certain tests....
>
> 3. Data from...expectancy tables showing the probabilities of success in intensive language courses for given levels of measured aptitude suggest that...one-third to one-half [of the general population] has a good chance of success (achieving satisfactory grades) in these courses.
>
> 4. Language aptitude, as measured by tests seems to consist of at least four identifiable abilities: (a) phonetic coding — 'the ability to 'code' auditory phonetic material in such a way that this material can be recognized, identified, and remembered over something longer than a few seconds'; (b) grammatical sensitivity — the ability to recognize the grammatical functions of words in sentence contexts; (c) rote memorization ability to learn a large number of associations in a relatively short time; (d) inductive language learning ability — the ability 'to infer linguistic forms, rules, and patterns from new linguistic content itself with a minimum of supervision or guidance....'
>
> 5. The traditional 'verbal' or vocabulary knowledge factor is not of great importance in predicting success in elementary language training where audio-lingual skills are stressed.
>
> 6. Phonetic discrimination ability — the ability to learn to distinguish foreign sounds — does not seem to be susceptible to reliable measurement and is probably not a useful predictor of success over and above tests of 'phonetic coding ability as described above.'"
>
> (Carroll as quoted by
> Gage, 1963, p. 1088)

Carroll's research and the language aptitude tests which grew out of it are more valid in some settings and types of language courses than in others, as Carroll himself recognized in Point 2 above, which excludes most school programmes. This fact suggests that variables other than aptitude must be involved in second language acquisition. Carroll admits that prediction of aptitude, even with these tests, is very risky:

> "One cannot pay attention to a single variable like foreign language aptitude (and actually this variable is complex) without considering its interaction with other variables such as the method of teaching, the age of the subject, his motivation and many others, and this is at least one reason why a fundamental understanding of the process of foreign language learning is badly needed."
>
> (Carroll, 1960, p. 132)

Pimsleur, Stockwell and Comrey also tried to isolate the abilities which make up foreign language aptitude. They administered 23 tests to 208 students in college French, and 22 tests to 202 additional students a year later. Their results indicated that verbal intelligence, motivation and auditory ability, especially pitch and timbre discrimination, were the main components which made up an ability to learn a foreign language (Pimsleur, Stockwell and Comrey, 1962). This experiment, however, was an attempt to predict achievement in high school and college courses. It would be difficult to say if the same results would have been achieved with elementary school children.

Gardner and Lambert (1965) tried to clarify the relationship of such specific language-learning abilities as Carroll had discovered, to intelligence and achievement in a second language, and to isolate just what second language skills could be predicted. Tests were administered to a total of 96 boys and girls who were studying French I and II at high schools in Lafayette, Louisiana. These pupils came from English-speaking homes, and had no previous experience with French. The tests administered were language aptitude batteries, measures of French achievement, intelligence scores. School grades were also obtained.

Out of these variables, Gardner and Lambert drew seven factors. Factor I was labelled Linguistic Reasoning. This factor emphasizes the role of reasoning skills in second-language achievement. It is the same as the verbal reasoning factor which Pimsleur, Stockwell, and Comrey found. The next factors are linked with language achievement. Factor II was French Vocabulary Knowledge; Factor III was School French Achievement; Factor IV was Oral French Reading Skill; Factor V was Relative French Sophistication. Factor VI was basically an Intelligence factor with little in common with measures of French achievement or language aptitude, as was Factor VII, a Verbal Knowledge factor.

Thus, in this study, specific second-language skills were linked with specific language-learning abilities. Indices of intelligence were distinct from both language aptitude and second-language achievement measures. Linguistic Reasoning, the dominant factor in the series of language-learning skills, was the only factor related to intelligence which seemed important in second language acquisition (Gardner and Lambert, 1965).

During 1966-67, Feenstra conducted a study of 124 students in grade nine in London, Ontario. They were given a battery of tests designed to measure language aptitude, general intelligence, verbal reasoning and facility with English words. They were also given questionnaires designed to determine attitudes towards French people, their reasons for studying French and their study habits, as well as questions designed to measure authoritarianism, ethnocentrism, and cultural allegiance.

Results of the study were that language aptitude is related to indices of intelligence and is a major determinant of those aspects of French achievement which are stressed in the high school French course (Feenstra, 1968).

> "Factor I indicated that Language Aptitude, as defined by a modern language aptitude test and general intelligence was a major determinant of those aspects of French achievement which appear to be stressed in school...Factor III demonstrated that School French Achievement, involving those aspects of language which are stressed in the school situation, is dependent not

> only upon specific language learning abilities, but also upon a dimension of 'studentship' as defined by the student's study habits."
>
> (Feenstra, 1968, p. 46)

Almost all of the studies which have been considered were conducted in the United States, in predominantly English-speaking settings. The English-speaking milieu of Toronto may have enough resemblances to the United States setting to make these studies valid in this respect for this City as well. But these experiments do not answer the question of why, in multilingual settings such as Switzerland or Belgium, the people are all apparently able to acquire second or third languages with such ease? Not all the citizens of Switzerland or Belgium can possess the skills and abilities which make up a special aptitude for languages.

A factor which complicates making a valid judgment about all these studies is that, in trying to examine the nature and quality of predictive measures, many experimenters fail to mention just how they measure language. For example, if it is stated that teachers' marks are to be the criterion of language success, this could involve many things. One teacher may have emphasized a skill such as oral work while another did not. If a written test is administered, one examiner may decide on harsh penalties for spelling mistakes and misplaced accents while another will not. These variations in the measurement of language ability will have a considerable effect on the results of the studies. Gardner and Lambert recognized some of these difficulties in their study when they mentioned that for the mid-term and final French grades used:

> "The grades obtained by each subject in the French course...were standardized for each class to remove the effects of differences in teachers' grading standards."
>
> (Gardner and Lambert, 1965, p. 194)

Almost all the studies which have gone in depth into the nature of second language learning — Carroll, Pimsleur, Stockwell and Comrey, Gardner and Lambert, Feenstra — have realized that there are factors other than aptitude involved in second language learning. Especially important is the motivation of the learner in the acquisition of a second language. Accordingly, the next chapter will deal with motivation and attitudes.

RESEARCH STUDIES ON ATTITUDES AND MOTIVATION

Until recently, success in learning a second language was thought to depend almost entirely upon the possession of linguistic aptitude. It was assumed that, once testing methods had been perfected, one could predict with certainty second language achievement (Gardner, 1960). However, it has been proved that aptitude tests do not have this kind of validity. Aptitude is certainly an important variable in second language acquisition, but it is not the only factor.

Some researchers such as Carroll (1960) and Pimsleur, Stockwell and Comrey (1962) recognized the existence of these other factors in second language learning. They suggested that personality, motivation and interest ought to be included in any prediction of second language achievement.

Recent studies have been very concerned about the part which motivation and attitudes play in the learning of a second language.

The Motivational Factor

Several studies have shown definitely that attitudinal and motivational factors play an extremely important role in second language acquisition. Gardner and Lambert (1959) found that two factors, not one, were associated with second language achievement. The first one is language aptitude and intelligence. The second factor, which is completely independent of the first, is made up of motivation and the type of orientation the learner has towards the language being studied (Gardner and Lambert, 1959). Gardner and Lambert found that French achievement depended on aptitude and intelligence as well as a sympathetic orientation towards the other, in this case French, group.

The same results were found by Feenstra --

> "In addition to the relationship between language aptitude and second language achievement, it was found that a complex of motivational variables...was related to the mastering of those aspects of second-language achievement which are involved in direct communication with that cultural-linguistic group."
>
> (Feenstra, 1968, p. 46)

Gardner in 1958, Gardner in 1960 and Datel (1965) conducted studies with the same results as above. Two factors, one an intellectual or aptitude factor and the other a motivational factor, were equally related to second language achievement. Nida also found that there were:

> "...two fundamental types of motivation which, when present to any considerable degree tend to guarantee a high measure of success in language learning."
>
> (Nida, 1956, p. 12)

Nida defined these types of motivation as (a) a desire to communicate and (b) a sensitivity to an out-group.

All these studies have consistently found that the attitudinal and motivational factor is extremely important for second language achievement.

Attitudes and Type of Orientation

Behind most of these studies is the assumption that the attitudes a person has towards the group whose language he is studying will determine his orientation in learning that language. This orientation will in turn determine the strength of his motivation to learn the language.

As a basis for theorizing in the field of attitudes, orientation and motivation in acquiring a second language, researchers have drawn on theories of first language learning. Especially important here is the theory of "identification," proposed by Mowrer and supported by Ervin as cited in

Feenstra (1968). Mowrer thinks that word-learning in children takes place when the sounds of words come to have a reinforcing power in themselves so that the learner wants to produce the words. This reinforcement power comes when the child associates the sounds with the users of words -- usually the mother and father -- whom the child loves and values and wishes to be like. Language learning is thus motivated by a basic desire to be like valued people in one's environment, first, family members, and then, others in the linguistic community (Lambert, 1963).

This theory has been adopted by researchers into second language learning, especially by a group of social scientists, such as W. E. Lambert at McGill University in Montreal. According to their theory, an individual, to acquire successfully a second language, must want to become like members of that linguistic-cultural group and must want to adopt various aspects of their behaviour (Lambert, 1963). In other words, the second language learner must want to identify with and integrate with members of the other group.

Gardner and Lambert (1959) and Gardner (1966) have extended this theory of identification. They concluded that a person with an "integrative orientation" to the learning of a second language wants to be "like valued members of the other language community" (Gardner and Lambert, 1959) and assume some aspects of their behaviour.

Studies have shown that this integrative orientation is essential to long-term success in second language acquisition. If a person wants merely to use the language as an academic credit, for example, or studies it merely because he is afraid of failure in that course, he will have what these theorists call an "instrumental orientation" towards the language. He will be studying the language with some concrete, short-term purpose in mind. This would also be the type of orientation a businessman possesses if he studies French because it is required for his job. This kind of orientation would not produce a motivation strong enough for the long-term exercise of second language acquisition.

Several studies have shown that students with an integrative orientation are more successful language learners than the instrumentally oriented pupils. Gardner and Lambert tested grade eleven English high school students in Montreal for aptitude, intelligence, attitudes towards the French community and intensity of motivation to learn French. It was found that those students with a sympathetic orientation towards the French were doing much better in their French courses. The integrative orientation apparently gave the students a strong motivation to learn the language (Gardner and Lambert, 1959). Gardner in 1960 confirmed this result. He tested ninety grade ten students from six Montreal high schools with a three hour series of tests to measure achievement in French, language aptitude, attitudes towards the parents, and home background characteristics. All pupils came from English-speaking homes and the group represented a wide variance in French skills. One-third was designated as "superior"; one-third was "average"; one-third was "poor." He found that aptitude and intelligence were very important for those language skills emphasized in the school setting, but that for those French skills which depended on the active use of the language in social settings, an integrative motive was essential (Gardner, 1960). Feenstra, in a 1968 study of grade nine pupils in London, Ontario reported that students with an integrative orientation and hence, a strong motivation to learn French, had high scores in French vocabulary, comprehension and speech, the skills which are of greatest importance in communicating with, and thus making it easier to integrate with, the French community.

Thus, an integrative orientation on the part of the student seems to promote a successful acquisition of a second language. How does this orientation develop? Apparently, the learner's orientation is determined by his attitudes toward the other group and by his ethnocentric tendencies.

Research has reported that students with an integrative orientation, who want to learn the second language so that they will be able to interact with that cultural community, tend to have positive attitudes towards that group and favourable attitudes toward out-groups in general.

Gardner, in his 1960 study, concluded that success in basic second-language skills was dependent upon favourable attitudes toward that group. Integratively-oriented students liked their French-Canadian acquaintances much more than did those who were instrumentally oriented (Gardner, 1960). Peal and Lambert found that bilingual children have decidedly more favourable attitudes toward the "other" language community, in contrast to the monolingual children. This study was conducted in Montreal and included 164 ten year old school children from six French schools as subjects. The bilingual children had more favourable attitudes to English-Canadians than the monolinguals. Lambert concluded that if an individual views the other community with favour, he is more likely to do well in his attempts to learn their language (Peal and Lambert, 1967). Lambert, Hodgson, Gardner and Fillenbaum in 1960 tested French speaking and English speaking Montreal students with ten tape-recorded speakers, some speaking in English and some in French. The students were not aware that bilingual speakers were being used. Students were asked to evaluate the personality characteristics of the speakers. Since they did not realize that the same speaker was talking in both English and French, it would be significant to see what different personality traits they assigned to each language (Lambert, Hodgson, Gardner and Fillenbaum, 1960). The conclusion was that an individual becomes bilingual in a bicultural community because of a favourable disposition towards both linguistic communities. On the other hand, a monolingual may have failed to acquire a second language because of unfavourable attitudes toward the culture and the language.

Gardner, in 1958, found that adults enrolled in a senior French course at night school received lower F-Scale scores than did adults in the elementary French courses. The F-Scale measures authoritarian attitudes and tendencies toward ethnic prejudice. Thus, it can be concluded that a favourable orientation toward out-groups in general makes second language learning easier (Gardner, 1958).

What influences the development of favourable or unfavourable attitudes toward a language group? Studies have shown that children reflect the attitudinal atmosphere of their homes. There is a very definite relationship between the parents' attitudes toward a language community and the attitudes and orientation which the child subsequently develops. Gardner suggests that:

> "...to some extent the degree of skill which the student attains in a second language will be dependent upon the attitudinal atmosphere in the home concerning the other linguistic group."
>
> (Gardner, 1966, p. 35)

Support is given this view that the child's parents play a major role in the development of attitudes about other ethnic groups by several studies. In Montreal, Gardner interviewed the parents of the students who were being tested. Results were that:

> "Integratively-oriented students tended to have an integratively-oriented parent; instrumentally-oriented students, an instrumentally-oriented parent. Similarly, the student's orientation was positively related to the parent's attitude towards the French-Canadians. Integratively-oriented students came from homes where the attitudes were pro-French, while instrumentally-oriented students came from homes where the attitudes were either neutral or negative."
>
> (Gardner, 1960, p. 43)

Gardner emphasizes that these favourable attitudes have nothing to do with the use of French in the home. In many cases, the parents knew little or no French, but had a sympathetic orientation toward that language and culture just the same.

The same results were found by Peal and Lambert. The bilingual children believed that their parents had the same strongly sympathetic attitudes toward the other linguistic group as they did. Lambert said:

> "It is a child's perception of the attitudes his parents hold that to a great extent influence his behaviour and thinking, whether or not this perception is in line with reality."
>
> (Peal and Lambert, 1967, p. 178)

Lambert says elsewhere that it is almost

> "...as though the linguistic skills in a second language, extending to the point of bilingualism, are controlled by family-shared attitudes towards the other linguistic-cultural community."
>
> (Lambert, 1963, p. 116)

In 1968, Feenstra also investigated the role of parental attitudes. In the factor analysis, he included ten measures obtained from the parents. Results were that parents who emphasized the integrative orientation and who had favourable attitudes toward French-Canadians, had children who were more skilled in French achievement. Also, parents who had a more favourable orientation toward out-groups in general, seemed to transmit these attitudes to their children (Feenstra, 1968).

In summing up, most of the studies dealing with motivational variables in second language learning present very consistent results. First, all show that attitudinal and motivational variables make up a factor which is just as important in second language achievement as linguistic aptitude. Researchers base their theory of this motivational factor on the concept of "identification." The most successful and strongly motivated second language learners want to take on behaviour patterns and integrate with the second language culture. This is termed the "integrative" orientation and is in contrast with the "instrumental" orientation. The type of orientation a learner has is determined by his attitudes toward the other linguistic-cultural group. If these attitudes are favourable, he will probably develop an integrative orientation. The attitudes he develops will be to a large extent determined by the attitudes of his parents.

A criticism which could be made of all of the studies discussed here is that, except for Feenstra, all took place in the bicultural and bilingual setting of Montreal. This could have had an influence on the results. To test these theories and results in other settings, Lambert, Gardner, Olton and Tunstall conducted studies in two bicultural American communities -- Maine and Louisiana -- and in the monocultural setting of Hartford, Connecticut. The experiments were conducted much as the studies in Montreal had been. Batteries of tests were administered to the students at the beginning of the year. At the end of the year, tests of achievement in French were given and grades in French obtained from the teachers. Results indicated that, as in Montreal, two factors underlay second language achievement. The first was an aptitude and intelligence factor, while the second was attitudinal and motivational variables.. Unlike the studies in the Montreal setting, however, the integrative orientation was found to be independent of favourable attitudes toward the other language community. Especially in the monocultural Hartford setting, the students studying French do not have the opportunity to mix with a French community and thus to formulate favourable or unfavourable attitudes. Lambert says:

> "In the American samples, where the student does not appear to have the opportunity or skill to mix actively with members of the other linguistic community, the orientation, motivation, and group specific attitudes are reasonably independent, though the integrative orientation and motivation are each related to achievement."
>
> (as cited in Gardner, 1966, p. 41)

Other Aspects of Motivation

The underlying base of motivational factors have been discussed above. The strength of motivation depends on the type of orientation and attitudes toward the other linguistic communities.

The "instrumental" orientation which depends on utilitarian reasons for studying the language can also provide a fairly strong, short-term motivation although it would probably never prompt a person to become bilingual. A boy in an African country may find it essential to know English before he can receive higher education and rise into the power group in his country. Just by virtue of knowing this second language can, in many instances, make him a member of a governing class. A person in Switzerland must know two or three languages before he can participate fully in the life of his country. He grows up in a multilingual milieu and, if he wishes to communicate, he must know these languages. In another case, a person might be highly motivated to learn a second language because of its social prestige and the social standing it confers on its user (Saif, 1957). This was the case in Europe during the Enlightenment when the use of French was a mark of social distinction. An instrumental motivation can be very useful in prompting a person to learn a second language for academic credit. A student who has been failing French may suddenly achieve passing grades if it is made a pre-requisite for graduation. A businessman who has no time or use for languages may suddenly acquire some French if it means more money in his job.

Motivation is thus a very multi-faceted variable in second language achievement.

SUMMARY OF RESEARCH LITERATURE

In recent years, researchers have come to know a great deal about second language learning. Although the phenomenon of learning another language in addition to one's mother tongue is extremely complex, and is made up of many variables, successful attempts have been made to unscramble and investigate many of these factors.

Some researchers have been concerned with the factor of age in second language learning. Many educators have expressed the opinion that early childhood is the best time for learning a foreign language. This view is based largely on an extrapolation made by neurologist Dr. Wilder Penfield. After observations of the two hemispheres of the cortex in the brain, Penfield concluded that childhood, up to the age of ten or twelve, is the only time to successfully acquire a second language.[1] Experiments have shown, however, that this is not necessarily the case. One study in Chicago has shown that there is no definite advantage in beginning a French programme in grade three, except possibly that the children have a better chance of acquiring a native-like pronunciation than if they began French study at an older age. The success of adults in intensive army language programmes have shown that adults are most certainly able to learn a second language when there is motivation.

Thus, an oral French programme in the early elementary school years will do no harm to the pupils. However, students beginning French study a few years later may also acquire the language successfully. The only advantage is, possibly, that the younger students will find it easier to acquire a native-like accent.

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[1] It is interesting to read what he wrote about J. Konard whom Penfield describes as "second only to Shakespeare, perhaps" in English language and who started learning English at the age of 15. (The Second Career: with other essays and addresses. Boston: Little, Brown and Co., 1963, p. 130.)

With respect to the effects of bilingualism on the child, carefully controlled studies generally show that there are no dangerous ill-effects from bilingualism or second language learning per se. Some studies in this category have concentrated on the effects of bilingualism on mental development. Those which show a detrimental effect are usually poorly controlled. The Peal and Lambert study in Montreal showed impressively that second language learning would have a very favourable effect on intellectual development. In the studies which examined the relationship of bilingualism to general school achievement, it was generally agreed that there is no harmful effect on progress in other subject areas and that study of a second language may even have a beneficial effect on pupil progress in other parts of the curriculum. Some people have worried that a second language might in some way interfere with the young pupil's native tongue. This interference exists more in theory than in practice. There is no trouble as long as the pupil learns to read in his mother tongue before reading in the second language. Thus, an oral programme at the early elementary school level in another language will produce no difficulty. Some studies have even shown that there is a transfer effect of learning another language on mental ability and language development. One such dramatic study is by Nancy Modiano, who found that Mexican children, who first learned to read in their native Indian tongue, made much better progress in reading Spanish. In Montreal, Lambert found extremely encouraging results with English speaking children when they were taught all their school subjects in French. Other studies have shown that no harmful effects of second language learning on social and personality adjustment can be supported. Ill effects can be noted arising from stresses encountered by immigrants who must reconcile cultural conflicts.

Early research into the prediction of language aptitude tried to show that intelligence scores were a good indication of how successful a pupil would be in acquiring a second language. This theory has to be incorrect for it has been demonstrated that even very slow learners can do extremely well in foreign language study. Later studies, in delving into the nature of second language learning, have found that it is made up of several skills. Verbal intelligence may contribute to these skills but it is not the major factor in language aptitude.

Aptitude tests, which seek to measure this series of skills, cannot predict with total accuracy those people who will do well in learning a second language, for these tests do not measure an extremely important variable, which is motivation. In applying the concept of motivation to second language learning, researchers have discovered that the strength of this motivation depends on the type of orientation the learner holds towards the other language group. It will be stronger if he has an "integrative" orientation, that is, if he identifies with, and wants to be like, members of the other language group, than if he has an "instrumental" orientation, that is, if he wants to learn the language for purely utilitarian reasons. Whether the learner has an integrative or instrumental orientation depends, in turn, on the attitudes the learner has towards the other language group. If they are favourable, he will have an integrative orientation; if they are neutral or unfavourable, he will only have an instrumental orientation. These attitudes which the learner holds are determined in large part by the attitudes of his parents and his home environment.

In reading the literature survey, the reader will find many contradictions and conflicting studies. This arises in part from the fact that, in earlier studies, many important controls were lacking. Many did not consider the age of the subjects. Frequently the studies were found to have ignored the socio-cultural background of the pupils. Other important controls often forgotten were lack of standardization in the measures of achievement, whether these were teacher marks or written tests and differences in the type of programmes the pupils were following.

One conclusion that can be made with absolute certainty is that second language acquisition is an extremely complicated and multi-faceted phenomenon.

RESPONSES AND REACTIONS TO THE QUESTIONNAIRE

One way of collecting people's ideas and opinions is through their reactions to given questions. The Research Department of the Board of Education for the City of Toronto designed a questionnaire to be distributed within the educational system as well as to parents. A copy of this questionnaire appears as an Appendix at the end of this report. The main purpose of this questionnaire was to study opinions about issues related to language instruction and to identify the degree of agreement among administrators, principals, teachers and parents of pupils with English speaking backgrounds and those of non-English speaking backgrounds.

In order to do that, a selected sample, from junior public Schools in the City of Toronto, was chosen. The following schools, where most of the pupils are of English speaking background, were selected:

Allenby
Argentina
Bedford Park
Brown
Cottingham
John Wanless

The selected schools that have non-English background pupils are:

McMurrich (Italians)
Orde (Chinese)
Pape (Greek)
Shaw (Portuguese)
Fern (This senior public school was selected because no other school in Toronto had a heavier population of Polish students.[2])

Questionnaires were prepared in all six languages so that parents could have copies in their native languages.

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[2] See Cost Analysis of New Canadian Instruction. Toronto: The Board of Education for the City of Toronto, Research Department, 1968.

Among the 383 returned questionnaires, 25 were found with no reactions. This leaves a sample of 358 parents of children in grade two.

The questionnaire was distributed also among the principals of the eleven selected schools, as well as the grade two teachers in the same schools. This group provided 37 completed questionnaires.

Resource personnel, the Associate Director of Education, one Assistant Superintendent, General Consultants, and the Language Study Centre Staff, also were asked to respond to the questionnaire. This group provided 25 completed questionnaires.

RESULTS

Results for the questionnaire are given item by item on the following pages. For the sake of clarity, responses were grouped in two categories, "agree" and "disagree." The number of responses are treated in the simple fashion of percentages. Each page carries a table to show the percentage of responses to a single item and some comments; it should be noted that the percentages will not always total to 100% as non-respondents are not included.

It should also be observed that the term "Teachers and Principals" includes the principals of the two public schools where French is taught in grade two, and the grade two teachers in these schools. The term "Resource Personnel" refers to those who are working in the Education Centre, i.e. Associate Director of Education, Assistant Superintendent, General Consultants, and Language Study Centre Staff.

Item #1 Living in Toronto requires knowledge of another language in addition to English.

	AGREE	DISAGREE
Parents	52.3%	47.0%
Teachers and Principals	8.1%	91.9%
Resource Personnel	16.0%	84.0%

It is interesting to observe that parents are almost equally divided in opinion concerning this item, while a large percentage of professionals disagree with it. On the other hand, most respondents in all three groups did say that French should be introduced in Toronto public schools, as replies to item "A" reveal. It is also useful to compare these percentages with the results of item 17.

Item #2 People should agree upon one language in addition to English, to be taught to all students regardless of their ethnic background.

	AGREE	DISAGREE
Parents	69.2%	17.7%
Teachers and Principals	40.5%	59.4%
Resource Personnel	20.0%	80.0%

The replies to item 2 should be compared with the replies to item 16. The responses by parents were similar to both items, while the professionals responded differently to the two items.

Item #3 Knowing another language gives a person a feeling of "pride."

	AGREE	DISAGREE
Parents	84.9%	12.5%
Teachers and Principals	75.6%	24.3%
Resource Personnel	56.0%	40.0%

Items 3, 4, 5 and 6 are opinions that can be expressed about the outcome of knowing another language. Items 3, 4 and 6 are more similar to each other in concept than to item 5. It is useful to note similarities, and differences among the groups as well as among the items.

Item #4 Studying another language in addition to English will provide more "job opportunities" in the future.

	AGREE	DISAGREE
Parents	88.5%	9.1%
Teachers and Principals	86.4%	8.1%
Resource Personnel	72.0%	20.0%

Item #5 A person who knows another language has better international understanding.

	AGREE	DISAGREE
Parents	76.2%	22.3%
Teachers and Principals	75.6%	24.3%
Resource Personnel	56.0%	36.0%

Item #6 A person who speaks two languages has more prestige in society.

	AGREE	DISAGREE
Parents	67.3%	29.1%
Teachers and Principals	62.1%	29.7%
Resource Personnel	48.0%	44.0%

Item #7 The bilingual immigrant should learn a third language in school.

	AGREE	DISAGREE
Parents	53.9%	38.8%
Teachers and Principals	37.8%	51.3%
Resource Personnel	8.0%	64.0%

Many of the professionals, did not wish to respond to this item, i.e. 28% of the resource personnel and 11% of teachers and principals left this item blank.

Item #8 Immigrants who have learned English as a second language get better marks than their English speaking classmates.

	AGREE	DISAGREE
Parents	33.0%	50.8%
Teachers and Principals	18.9%	75.6%
Resource Personnel	4.0%	84.0%

Because school success is often discussed in relation to learning English as a second language it was of interest to obtain an indication of opinions on this topic.

Item #9 A second language will help the student to improve his (her) English.

	AGREE	DISAGREE
Parents	62.3%	31.6%
Teachers and Principals	37.8%	59.4%
Resource Personnel	24.0%	72.0%

It is believed by a varying percentage of each group that a second language has a positive influence upon improving the English language. It is vital to compare these responses, however, to those of item 18 which asks whether a second language hinders the development of the English language; a statement with which no professionals agreed.

Item #10 A student who speaks another language as a mother tongue, in addition to English, should be given academic credit for this language (e.g., Italian, German, Chinese, etc.)

	AGREE	DISAGREE
Parents	62.2%	34.9%
Teachers and Principals	78.3%	21.6%
Resource Personnel	66.0%	36.0%

All three groups tend to favour giving credit for another language other than English. This could be interpreted as mild encouragement for maintaining the student's mother tongue.

Item #11 Fluency in speech is the real indicator of whether a person knows another language.

	AGREE	DISAGREE
Parents	52.2%	40.5%
Teachers and Principals	56.7%	37.8%
Resource Personnel	36.0%	30.0%

The results show that there is a division of opinion concerning this item. Possibly this division was generated by the exclusive emphasis which this item gives to oral speech.

Item #12 The ability to read and write another language is more important than the ability to speak it.

	AGREE	DISAGREE
Parents	33.2%	61.1%
Teachers and Principals	8.1%	91.8%
Resource Personnel	4.0%	92.0%

About one-third of the parents believe that reading and writing a language is more important than speaking that language. This item should be considered along with the preceding one on speech.

Item #13 Only students with good marks in school should have the chance to study another language.

	AGREE	DISAGREE
Parents	17.3%	80.7%
Teachers and Principals	0.0%	97.2%
Resource Personnel	4.0%	96.0%

The results of item 13 were intended for comparison with item 14.

Item #14 When students are doing poorly in English grammar and literature, they should not be allowed to study another language.

	AGREE	DISAGREE
Parents	21.0%	75.4%
Teachers and Principals	10.8%	89.1%
Resource Personnel	12.0%	88.0%

Item #15 Bilinguals usually get better marks in school than monolinguals.

	AGREE	DISAGREE
Parents	35.4%	43.3%
Teachers and Principals	16.2%	70.2%
Resource Personnel	8.0%	80.0%

Item 15 intended to emphasize bilingualism, fluency and the ability to think in two languages. It seemed, from a few comments, that some respondents interpreted this item as if it referred to immigrants; this may account for the similarity to the response pattern for item 8.

Item #16 French is the language which should be taught, in addition to English, in Toronto schools.

	AGREE	DISAGREE
Parents	78.7%	17.5%
Teachers and Principals	70.2%	27.0%
Resource Personnel	72.0%	24.0%

Item 16 is to be compared with item 2 as well as item "A."

Item #17 There is no need to study any other language (i.e. other than English) in any grade in Toronto schools.

	AGREE	DISAGREE
Parents	18.7%	76.5%
Teachers and Principals	18.9%	78.3%
Resource Personnel	8.0%	80.0%

The professionals' responses confirm the opinions already expressed in item 1, while parents who had been divided on item 1 seem to follow the same pattern as the professionals in responding to this item.

Item #18 Learning any new language will hinder the development of a student's English.

	AGREE	DISAGREE
Parents	13.6%	82.1%
Teachers and Principals	0.0%	99.9%
Resource Personnel	0.0%	100.0%

A previous reference has been made to these results following item 9.

Item #19 Learning another language, in addition to English, should be compulsory for public school students.

	AGREE	DISAGREE
Parents	68.9%	28.0%
Teachers and Principals	56.7%	43.2%
Resource Personnel	28.0%	64.0%

It is of interest to compare the percentages of agreement and disagreement among the three groups on items 19, 20 and 21. The three items change only in reference to the level of education. The word "compulsory" appears to have been important to some respondents and should be considered when making comparisons among the three items.

Item #20 Learning another language, in addition to English, should be compulsory for secondary school students.

	AGREE	DISAGREE
Parents	74.9%	21.2%
Teachers and Principals	64.8%	32.4%
Resource Personnel	28.0%	64.0%

Item #21 Learning another language, in addition to English, should be compulsory for university students.

	AGREE	DISAGREE
Parents	57.6%	36.6%
Teachers and Principals	43.2%	51.3%
Resource Personnel	16.0%	80.0%

Item "A" — In the public schools of Toronto, which language(s), in order of importance, should be introduced? Please include English in your list. (Number in order of importance.)

Languages Suggested	Number of Parents (358)	Number of Teachers and Principals (37)	Number of Resource Personnel (25)
English	291	36	25
French	274	34	23
Italian	90	14	11
German	67	8	3
Spanish	59	8	6
Russian	31	3	1
Latin	21	3	1
Greek	19	3	1
Chinese	18	1	—
Portuguese	6	2	—
Polish	4	—	—
Ukrainian	4	1	—
Slavic	3	—	—
Hebrew	2	—	—
Canadian Indian	1	—	—
Japanese	1	—	—
Estonian	1	—	—
Swedish	1	—	—
Dutch	1	—	—
Native or ethnic language	4	1	—
To be left for personal choice	4	—	—
No response	67	—	—
Average number of languages mentioned by respondents in each group (including English as one language).	3.1	3.1	2.8

Various languages were mentioned by the respondents in answering item "A." The average respondent mentioned three languages English, French, and another language; over 90% of the respondents in each group, included French in this list; only 81.2% of the parents who completed the questionnaire answered this item. The second most frequently mentioned language was Italian (25.1% of the parents, 37.6% of the teachers and principals, and 44.0% of the resource personnel). It is also noteworthy that all three groups arranged the languages in a similar order with regard to frequency of mention. It was also noted that many parents who responded to the questionnaire mentioned their native language in addition to English.

Item "B" — If you have included French in the above list, to whom should French be taught and why?

Categories "of those" To Whom French Should be Taught	Number of Parents	Number of Teachers and Principals	Number of Resource Personnel
In elementary and secondary schools	54	4	3
To children as early as possible	45	6	3
To everyone	42	9	1
In all public schools	28	1	--
From Grade 4 to Grade 8	28	2	1
Optional for those who are interested	27	4	11
To those who are capable	9	2	3
In high school	9	--	--
To those whose parents desire it	8	2	1
From Kindergarten to Grade 3	7	2	—
In senior public schools	5	--	--
To all English speaking persons (non-immigrants)	3	2	--
In Grade 2 and up	—	8	4
In Grade 5 and up	--	--	1
To children of French parents	1	--	--
No response	90	1	2

In answer to "and why?", one gave the answer "for scientific reasons." Other parents thought that French would be useful to their children in the future — for travel or for job purposes. Others thought that a knowledge of French would give their children an appreciation of other cultures. Finally, many parents wanted their children to learn French as they believed that childhood was the best time to learn another language.

The preceding table shows the responses of each group to item "B" in the questionnaire. It seems that this item did not generate as consistent a set of reactions as did item "A." The most frequent response among parents (12.3%) was given to elementary and secondary levels of education. Among teachers and principals, the most common response (24.3%) was "to everyone." Resource personnel were most likely (44.0%) to reply "optional for those who are interested."

As observed there is no consistency among the three groups in answering this item as there is in the responses to items "A" and "C."

Item "C" -- If you have included other languages in the above list, to whom should these be taught and why?

Categories "of those" to Whom Other Languages Should be Taught	Number of Parents	Number of Teachers and Principals	Number of Resource Personnel
Optional for those who are interested	51	13	9
In high school	41	1	1
Immigrants to be instructed in their native languages	26	1	3
Population of the region	24	3	-
Grade 4 to Grade 8	17	2	1
To those who are capable	16	5	-
To anyone	8	5	-
Kindergarten to Grade 3	7	1	-
In university	7	-	1
To those whose parents desire it	5	1	-
Public and secondary school level	-	1	-
English speaking students	-	1	-
Grades 7 and 8	-	2	-
Those who elect them	-	-	1
No response	192	13	9

Although some respondents did not mention "to whom" these languages should be taught, they gave an answer to the second part of the item which is "why." The following are the responses to the second part:

Appreciation of other cultures	29	-	2
Opportunities for the future	24	2	-

From the above table, it is obvious that there is a kind of agreement among the three groups. The highest response, although a relatively low percentage when compared with percentages on previous items, was directed towards making other languages "optional," i.e. 14.2% of parents, 35.1% of teachers and principals, and 36.0% of resource personnel.

It is interesting that 8% of the resource personnel and about 8% of the parents gave "appreciation of other cultures," as their reason for studying another language, in addition to English and French. None of the teachers and principals gave that reason.

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APPENDIX

The Research Department is collecting information in order to help answer a request made by the Board. Please complete the following questionnaire. Your name is not requested.

PLEASE RETURN THE QUESTIONNAIRE PROMPTLY IN THE ENCLOSED ENVELOPE

Check the most appropriate category for each question; comments may be added at the end.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Living in Toronto requires knowledge of another language in addition to English.	____	____	____	____
2. People should agree upon one language in addition to English, to be taught to all students regardless of their ethnic background.	____	____	____	____
3. Knowing another language gives a person a feeling of "pride."	____	____	____	____
4. Studying another language in addition to English will provide more "job opportunities" in the future.	____	____	____	____
5. A person who knows another language has better international understanding.	____	____	____	____
6. A person who speaks two languages has more prestige in society.	____	____	____	____
7. The bilingual immigrant should learn a third language in school.	____	____	____	____
8. Immigrants who have learned English as a second language get better marks than their English speaking classmates.	____	____	____	____
9. A second language will help the student to improve his (her) English.	____	____	____	____

	Strongly Agree	Agree	Disagree	Strongly Disagree
10. A student who speaks another language as a mother tongue, in addition to English, should be given academic credit for this language (e.g., Italian, German, Chinese, etc.)	___	___	___	___
11. Fluency in speech is the real indicator of whether a person knows another language.	___	___	___	___
12. The ability to read and write another language is more important than the ability to speak it.	___	___	___	___
13. Only students with good marks in school should have the chance to study another language.	___	___	___	___
14. When students are doing poorly in English grammar and literature, they should not be allowed to study another language.	___	___	___	___
15. Bilinguals usually get better marks in school than monolinguals.	___	___	___	___
16. French is the language which should be taught, in addition to English, in Toronto schools.	___	___	___	___
17. There is no need to study any other language (i.e. other than English) in any grade in Toronto schools.	___	___	___	___
18. Learning any new language will hinder the development of a student's English.	___	___	___	___
19. Learning another language, in addition to English, should be compulsory for public school students.	___	___	___	___
20. Learning another language, in addition to English, should be compulsory for secondary school students.	___	___	___	___
21. Learning another language, in addition to English, should be compulsory for university students.	___	___	___	___

A. In the public schools of Toronto, which language(s), in order of importance, should be introduced? Please include English in your list. (Number in order of importance.)

B. If you have included French in the above list, to whom should French be taught and why?

C. If you have included other languages in the above list, to whom should these be taught and why?

IF YOU HAVE FURTHER COMMENTS, PLEASE WRITE THEM IN THE SPACE BELOW.